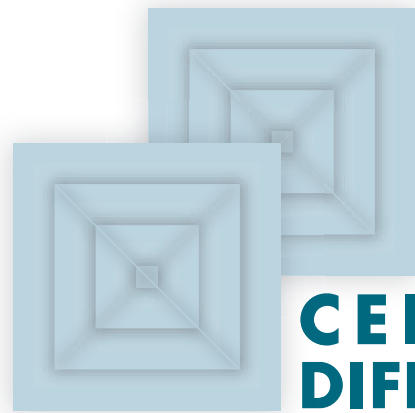
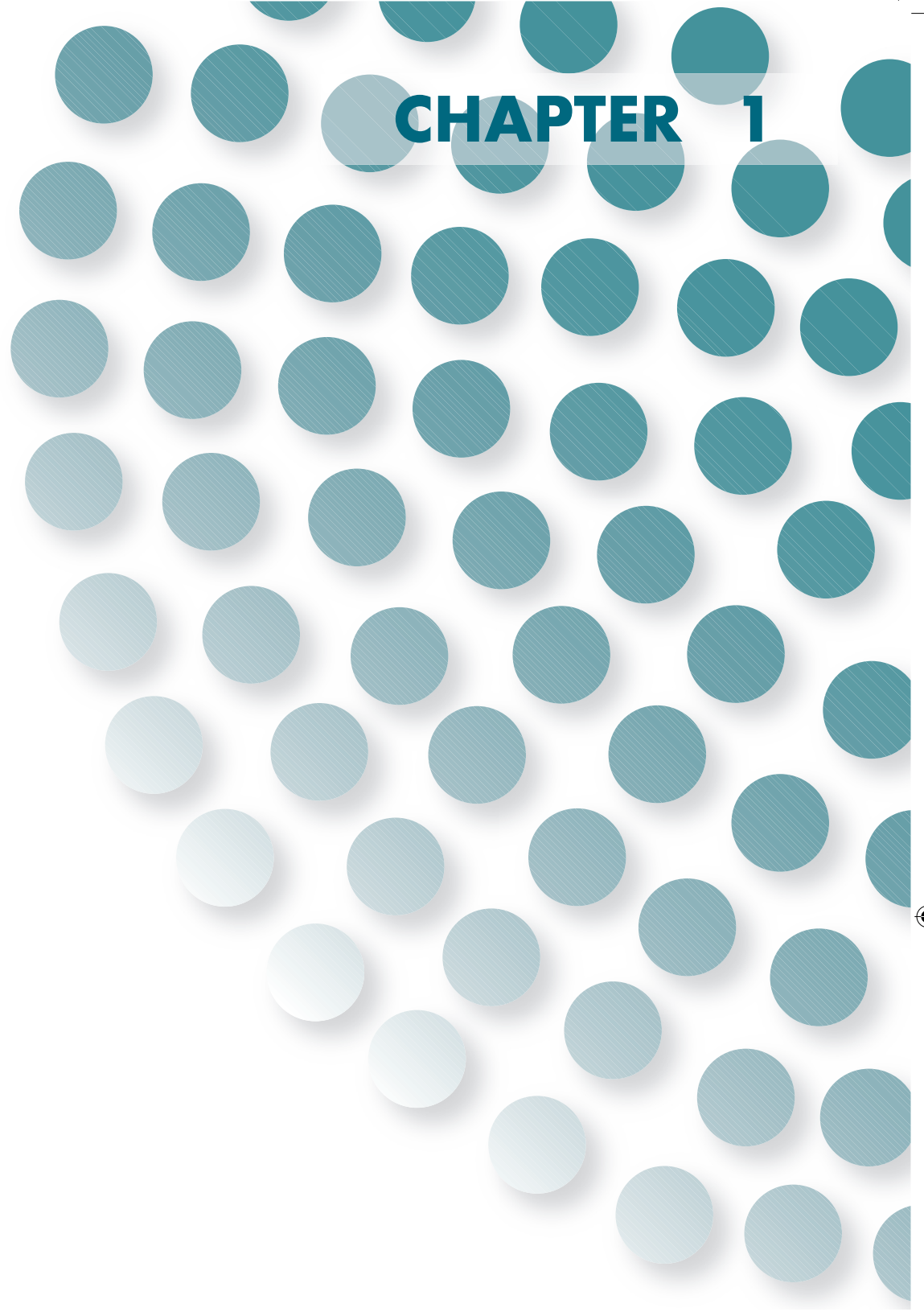


CHAPTER 1



CEILING DIFFUSERS





CONTENTS

Introduction, Features & Characteristics, Operating Range.

Pattern Selection, Selection Procedure.

Different Core Pattern Arrangements.

Square Diffusers – Model 4WS, Construction & Dimensional Details.

Diffuser Accessories.

Mounting Instructions.

Effective Area Values.

Selection Diagrams for Square Diffusers.

Selection Diagrams for Rectangular Diffusers.

Tabular Selection for Square Diffusers.

Tabular Selection for Rectangular Diffusers.

Ordering Data.

CEILING DIFFUSERS





CEILING DIFFUSERS

LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

BCI multi directional diffusers represent an optimum solution for the diffusion of air from ceiling in modern concept areas with a high use of extruded aluminium with which thanks for their precise line they harmonize perfectly. The different shape of the cones (core) in respect of the number of the air flows (1,2,3 & 4 ways) can itself create an aesthetic element to be utilized.

Features & Characteristics :

- Material : Frame & inner cones (core) are made of Extruded Aluminium Profiles of 6063 Alloy by which allow the diffusers to be suitably used for both internal & external applications.
- Both frame & inner cones (core) have a general wall thickness of 1.5 mm (± 0.2 mm tolerance).
- Available in both square & rectangular shapes.
- Units are flush mounted & available with different pattern arrangements 1,2,3 & 4 ways (i.e. different ways of air discharge directions).
- Available in wide variety of standard neck sizes ranging from 150 x 150 up to 600 x 600 mm in 75 mm increments.
- The inner cones (core) is fully removable to provide easy :
 - Installation.
 - Adjustment of key operated OBD.
 - Maintenance.
 - Core exchange by different pattern in future.
 The core is held in place & fixed to the frame by two loaded spiral galvanized steel springs.
- The ceiling diffuser projects from the mounting surface by 5 mm.
- Recommended for use in rooms with ceiling heights ranging from 2.5 m to 4.0 m.
- Accessories : see page No. CD-06, 07 & 08.
- Mounting Installations : see page No. CD-09.
- Surface Finishes : see page No. CD-21.

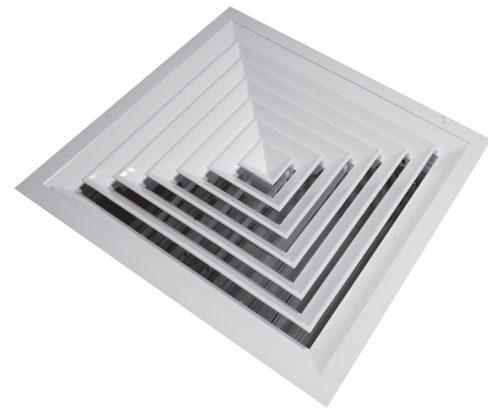


TABLE CD - 01

OPERATING RANGE & QUICK SELECTION TABLE FOR SQUARE DIFFUSERS (MODEL 1,2,3 & 4WS)

| SIZE | | Noise Level | | | | | |
|-----------|-----------|-------------|------|------|------|------|------|
| mm | Inch | Min. | <25 | >25 | <30 | >30 | 40 |
| 150 x 150 | 6" x 6" | 50 | 145 | 150 | 175 | - | - |
| 225 x 225 | 9" x 9" | 110 | 280 | 285 | 330 | - | - |
| 300 x 300 | 12" x 12" | 200 | 485 | 490 | 550 | 555 | - |
| 375 x 375 | 15" x 15" | 310 | 615 | 620 | 715 | 720 | 954 |
| 450 x 450 | 18" x 18" | 450 | 700 | 705 | 800 | 805 | 1246 |
| 525 x 525 | 21" x 21" | 600 | 950 | 955 | 1070 | 1075 | 1526 |
| 600 x 600 | 24" x 24" | 795 | 1090 | 1095 | 1390 | 1575 | 1992 |

• Figures are in CFM.**

CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Pattern Selection :

The pattern selection is determined by the shape of the space to be conditioned, the number of diffusers in it, and the type and the location of lighting fixtures or other devices mounted on the same ceiling.

For Example : a two way square diffuser, opposed blades Model 2WS-O might be used in a corridor areas. On the other hand a larger area can often be divided into squares or rectangles of nearly equal areas, if a diffuser can be located in the center of each of these areas, a pattern of Model 4WS (for square areas) or 4WR (for rectangular areas) could be used for four way discharge.

Selection Procedure :

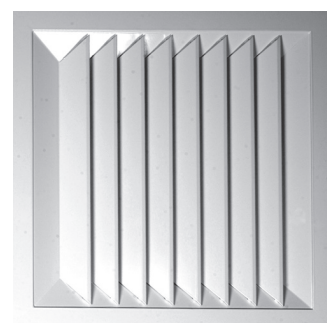
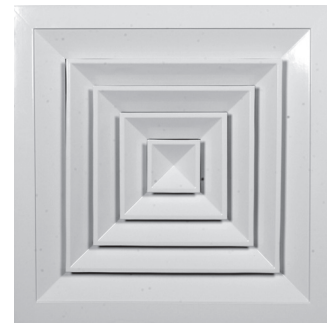
Having established the position where terminals can be sited, refer to data showing core pattern details and select the suitable core pattern required.

knowing the air volume and throw for each diffuser in question then check :

- Recommended limit of air flow rate for each diffuser direction according to ceiling height (table CD-02) with throw of air required lying between the max. and min. values.
- Note Noise Level from performance data diagrams and check the same with Noise Level recommendations table.
- Determine the total pressure drop from performance data.

TABLE CD - 02

| Ceiling Height (m) | Max. Flow Rate For each Diffuser Direction (L/s) | Max. Cooling Differential ΔT (°C) |
|-----------------------|---|--|
| 2.5 | 100 | 11 |
| 3.0 | 200 | 13 |
| 3.5 | 350 | 15 |
| 4.0 | 500 | 16 |



CEILING DIFFUSERS

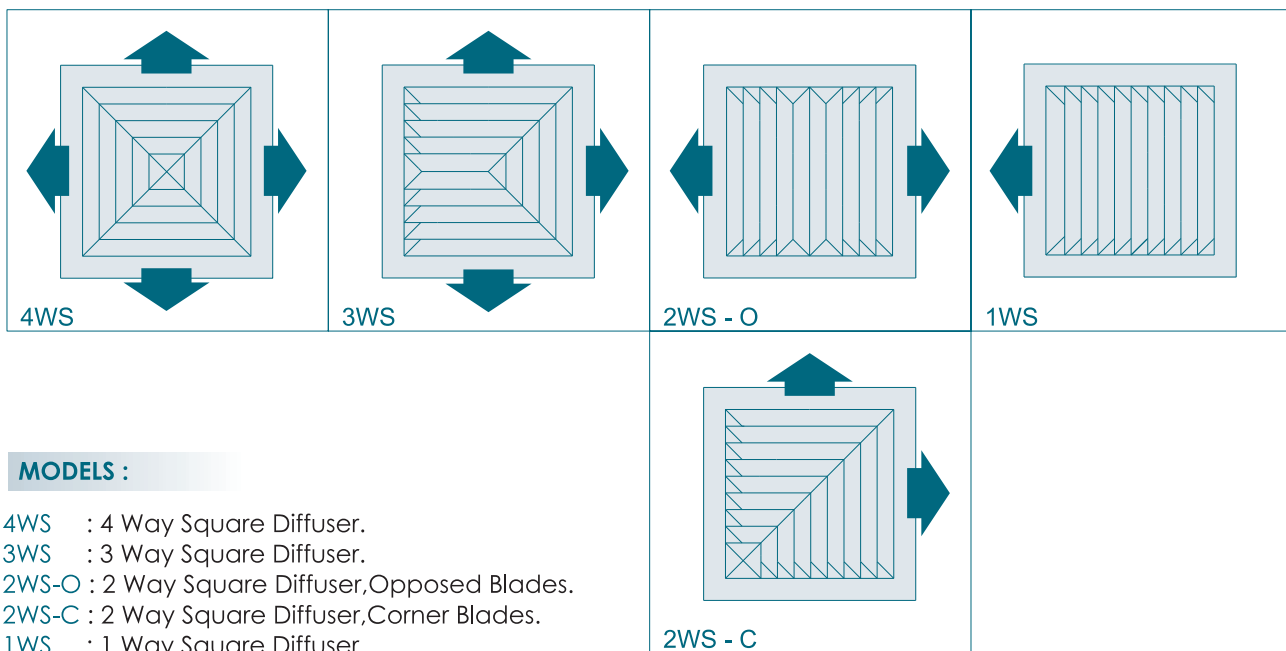


LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

DIFFERENT CORE PATTERN ARRANGEMENTS FOR BOTH SQUARE & RECTANGULAR DIFFUSERS

| 4 Way - Discharge | 3 Way - Discharge | 2 Way - Discharge | 1 Way - Discharge |
|-------------------|-------------------|-------------------|-------------------|
|-------------------|-------------------|-------------------|-------------------|

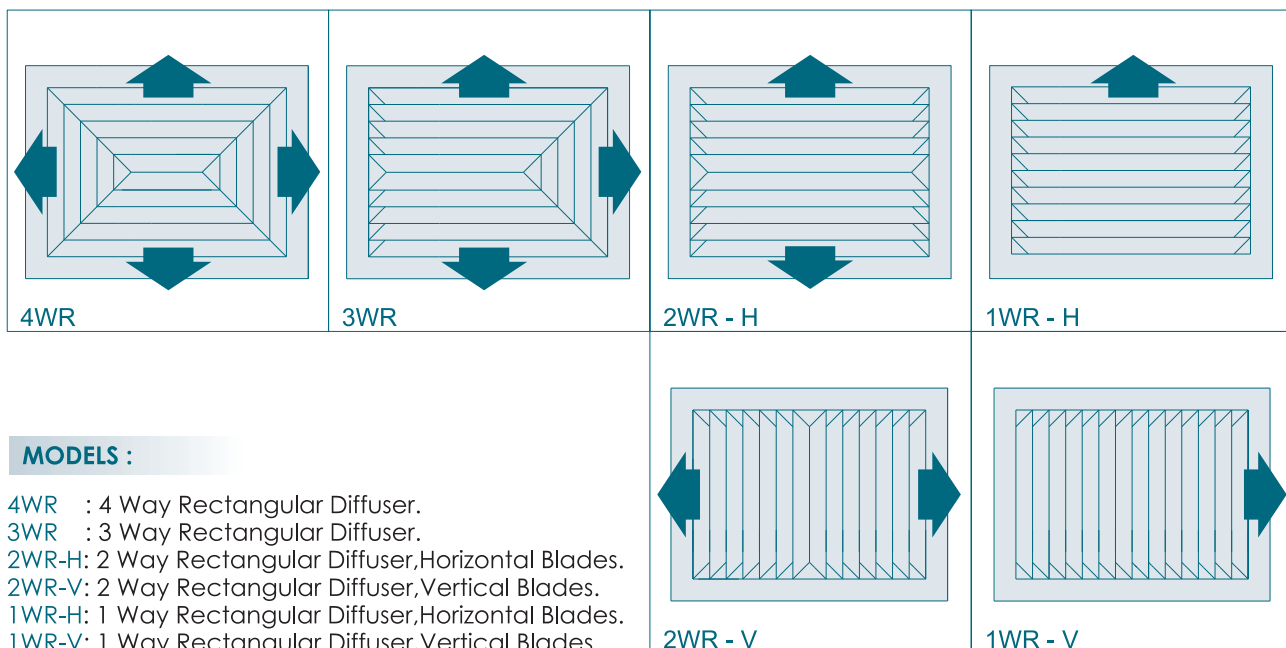
SQUARE DIFFUSERS



MODELS :

- 4WS : 4 Way Square Diffuser.
- 3WS : 3 Way Square Diffuser.
- 2WS-O : 2 Way Square Diffuser, Opposed Blades.
- 2WS-C : 2 Way Square Diffuser, Corner Blades.
- 1WS : 1 Way Square Diffuser.

RECTANGULAR DIFFUSERS



MODELS :

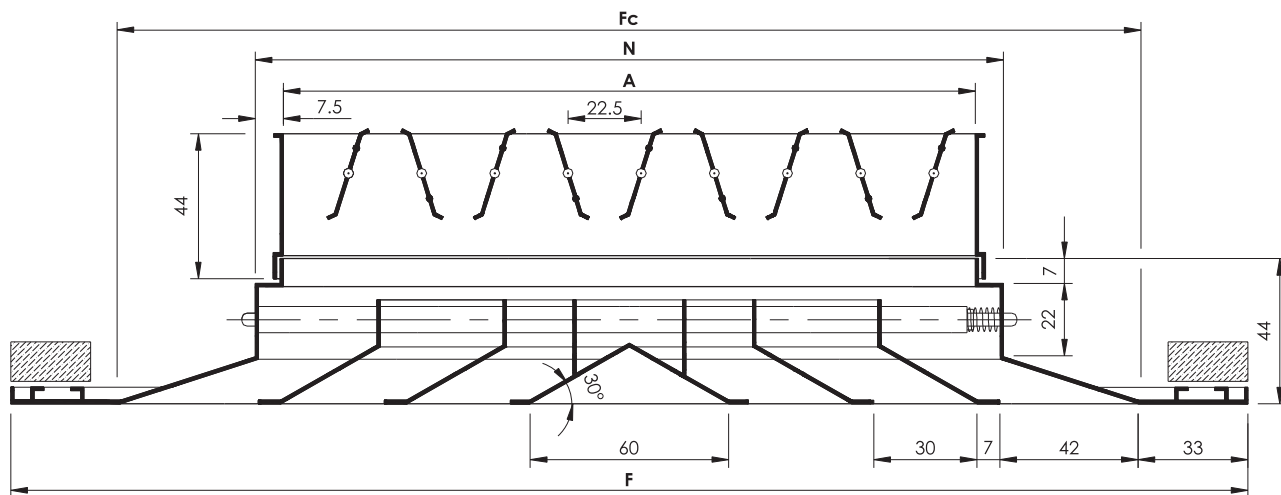
- 4WR : 4 Way Rectangular Diffuser.
- 3WR : 3 Way Rectangular Diffuser.
- 2WR-H: 2 Way Rectangular Diffuser, Horizontal Blades.
- 2WR-V: 2 Way Rectangular Diffuser, Vertical Blades.
- 1WR-H: 1 Way Rectangular Diffuser, Horizontal Blades.
- 1WR-V: 1 Way Rectangular Diffuser, Vertical Blades.

CEILING DIFFUSERS

LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

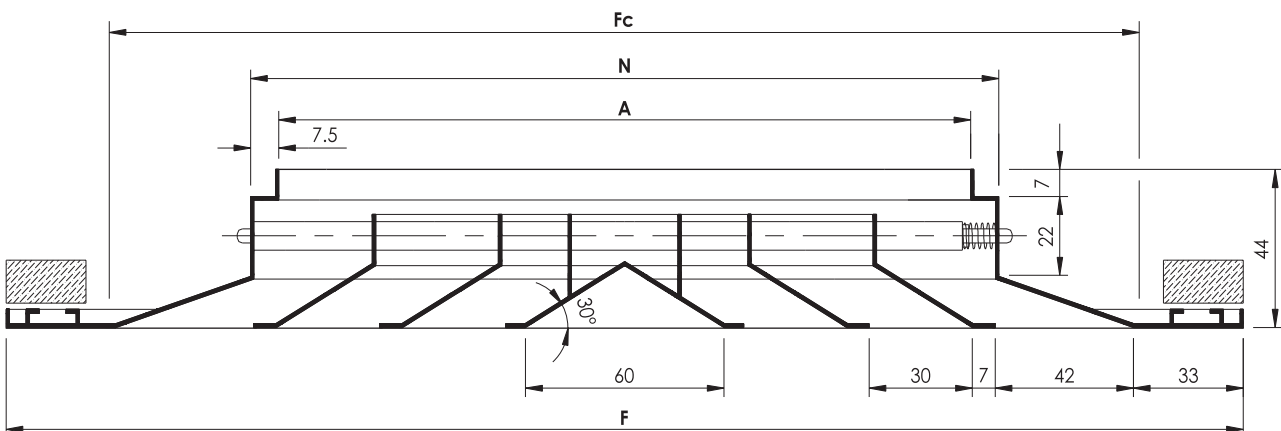
Square Diffusers - Model 4WS Construction and Dimensional Details

Supply Air Diffuser c/w Opposed Blade Damper , Model SAD 4WS



- Diffusers called Supply Air Diffuser and coded as **SAD** are always equipped with Opposed Blade Damper (provided as standard).

Return, Extract or Exhaust Air Diffuser w/o Opposed Blade Damper , Model RAD or EAD 4WS



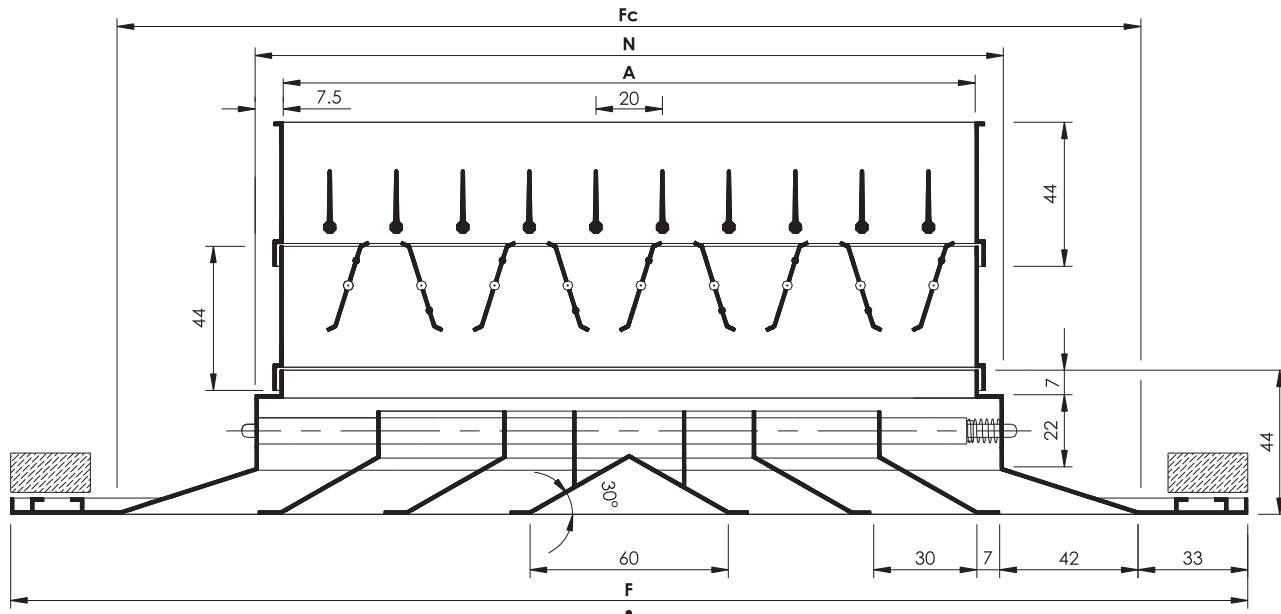
- Unless otherwise specified, Diffusers called Return, Extract or Exhaust Air Diffuser and coded as **RAD** or **EAD** are usually supplied w/o Opposed Blade Damper as a standard.
- In some cases **RAD** or **EAD** are required with Opposed Blade Damper, this will be provided as an option.
- All dimensions are in mm and subject to ± 1 mm tolerance.

CEILING DIFFUSERS

LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Square Diffusers - Model 4WS Construction and Dimensional Details

Supply Air Diffuser c/w Opposed Blade Damper and Equilizing Grid , Model SAD 4WS + EG



- The Equalizing Grid is available on request as an option.
- The assembly of Equalizing Grid with diffuser provides uniform air flow and distribution over the neck of the diffuser which ensures reduction in pressure losses, noise level and turbulence.
- The blades spaced on 20 mm centres, help to control the air flow in a linear manner.
- Individually adjustable blades allow minor adjustments of air flow and additional control when required (blades can be deflected into different degrees).

TABLE CD - 03

| NECK & OVERALL DIMENSIONS FOR SQUARE DIFFUSERS | | | | | | | | | | |
|--|-----------|----------------------|---|----------------------|-----|----------------------------|-----|-----|---|-----|
| (N) NOMINAL/LISTED SIZE | | (A) ACTUAL NECK SIZE | | (F) OUTER FRAME SIZE | | (Fc) FALSE CEILING OPENING | | | | |
| mm | Inch | mm | | mm | | mm | | | | |
| 150 x 150 | 6" x 6" | 135 | x | 135 | 297 | x | 297 | 233 | x | 233 |
| 200 x 200 | 8" x 8" | 185 | x | 185 | 347 | x | 347 | 283 | x | 283 |
| 225 x 225 | 9" x 9" | 210 | x | 210 | 372 | x | 372 | 308 | x | 308 |
| 300 x 300 | 12" x 12" | 285 | x | 285 | 447 | x | 447 | 383 | x | 383 |
| 375 x 375 | 15" x 15" | 360 | x | 360 | 522 | x | 522 | 458 | x | 458 |
| 450 x 450 | 18" x 18" | 435 | x | 435 | 597 | x | 597 | 533 | x | 533 |
| 500 x 500 | 20" x 20" | 485 | x | 485 | 647 | x | 647 | 583 | x | 583 |
| 525 x 525 | 21" x 21" | 510 | x | 510 | 672 | x | 672 | 608 | x | 608 |
| 600 x 600 | 24" x 24" | 585 | x | 585 | 747 | x | 747 | 683 | x | 683 |

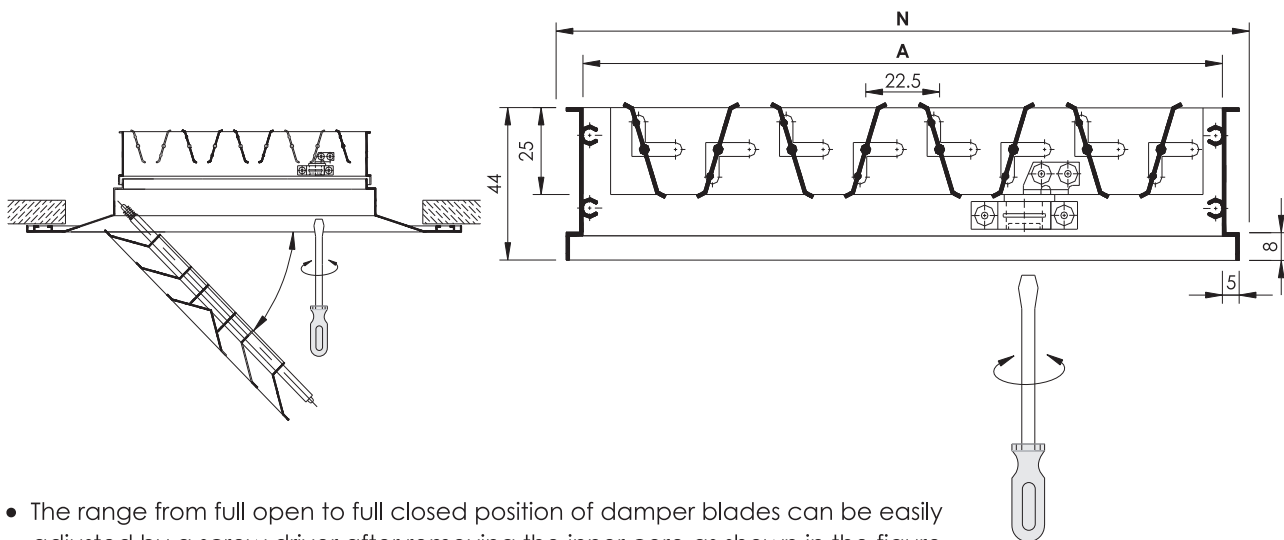
- The 18" x 18" diffuser can be replaced on false ceiling with modules of 600 x 600 mm panel.
- Other sizes are available on request.
- All dimensions are in mm and subject to ±1 mm tolerance.

Diffuser Accessories

A. Opposed Blade Damper

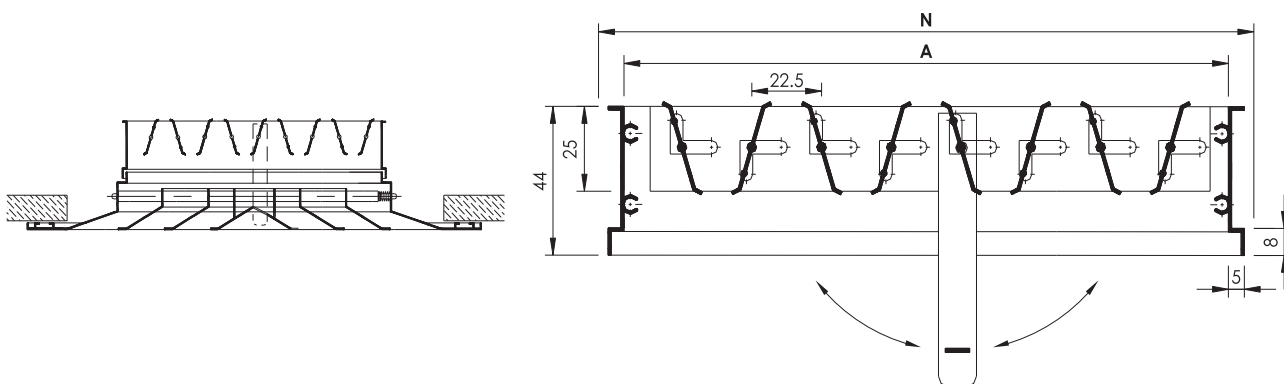
- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- Blades are designed to rotate opposite to each other.
- The specially designed blades have an overlapping lip which assures a tight closure.
- Generally, the opposed blade damper is attached to the diffuser and fixed to it by means of "S" clips.
- Blades are separated from it's frame by nylon bushes. This method of assembly provides maximum rattle - free performance and eliminates corrosion.
- Usually damper standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).

Opposed Blade Damper - Screw Type Operation (Standard)



- The range from full open to full closed position of damper blades can be easily adjusted by a screw driver after removing the inner core as shown in the figure.

Opposed Blade Damper - Lever Type Operation (Optional)



- In this case, blades adjustment can be easily done by lever accessible trough the face of diffuser without removing inner core as shown in the figure.
- All dimensions are in mm and subject to ± 1 mm tolerance.

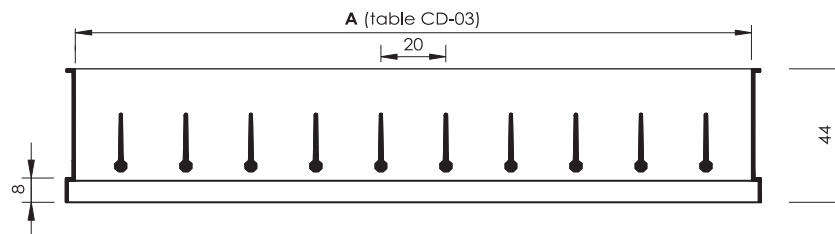
CEILING DIFFUSERS

LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Diffuser Accessories

B. Equalizing Grid (Optional)

- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- The aerofoil blades are separated from it's frame by nylon bushes.
- Usually standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).
- For further details, refer to page no. CD-05.



All dimensions are in mm and subject to ± 1 mm tolerance.

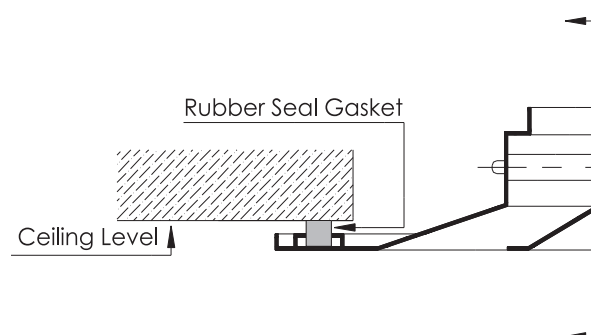
C. Foam Type Rubber Gasket (Optional)

Gasket Type : Single Sided Self - Adhesive Foam.

Gasket Function : Sealing.

Gasket Benefits :

- Stops diffuser rattling.
 - Minimize air infiltration.
 - Stops leaks and pressure losses.
 - Takes up unevenness of ceiling.
 - Easy to apply on site or in factory.
- To be applied around the perimeter of the back side of the diffuser to act as an air seal to prevent pressurised air from escaping from the sides of the diffuser when fixed to the ceiling.



CEILING DIFFUSERS

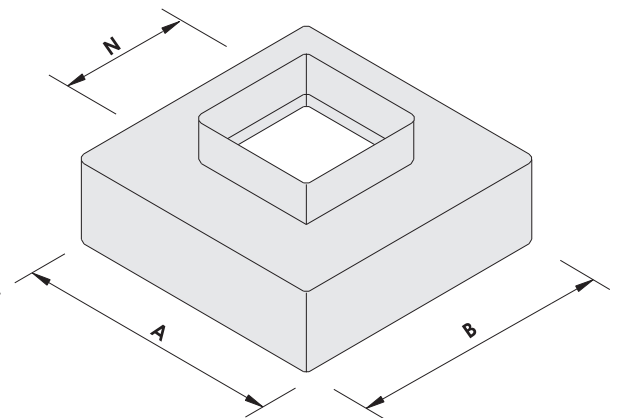
LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Diffuser Accessories

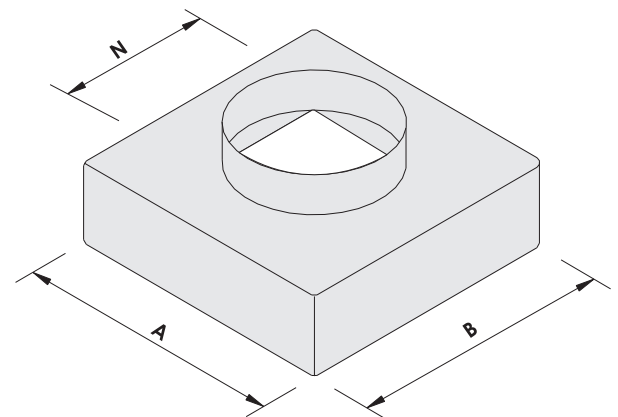
D. Neck Adaptor (Optional)

Neck Adaptors that are field installed to allow either easy connection to Square duct, or easy connection to Flexible or Round rigid duct.

- Applications :
For those projects using square duct connections to the air outlets, the Square to Square Neck Adaptors are available for all square diffuser sizes. Adaptor design provides suitable and easy Neck to Duct connection.
On the other hand, those projects using flexible or round rigid duct connections to the air outlets, the Square to Round Neck Adaptor are available for all square diffuser sizes. Adaptor design provides suitable and easy Neck to Duct connection.
- Material :
24 Gauge Galvanized steel construction.
- Surface Finishes :
Mill galvanized as a standard or matt black coated from inside only as an option.
- Fixing Method:
Adaptor fixed to the back side of the diffuser by rivets.
- Design and Sizes:
Refer to illustrative sketches and table No. CD-04 below for dimensional data :



Square to Square Neck Adaptor

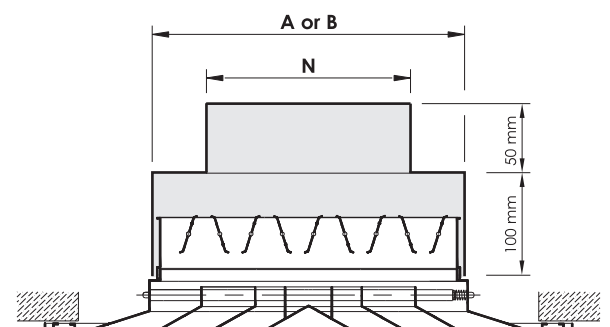


Square to Round Neck Adaptor

TABLE CD-04

| AVAILABLE SIZES FOR SQUARE NECK ADAPTORS | | | |
|--|-----------|---------------|--------|
| Diffuser Sizes | | Adaptor Sizes | |
| mm | Inch | A (mm) | B (mm) |
| 150 x 150 | 6" x 6" | 142 | 142 |
| 225 x 225 | 9" x 9" | 217 | 217 |
| 300 x 300 | 12" x 12" | 292 | 292 |
| 375 x 375 | 15" x 15" | 367 | 367 |
| 450 x 450 | 18" x 18" | 442 | 442 |
| 525 x 525 | 21" x 21" | 517 | 517 |
| 600 x 600 | 24" x 24" | 592 | 592 |

- The Adaptor neck size "N" to be specified by customer.

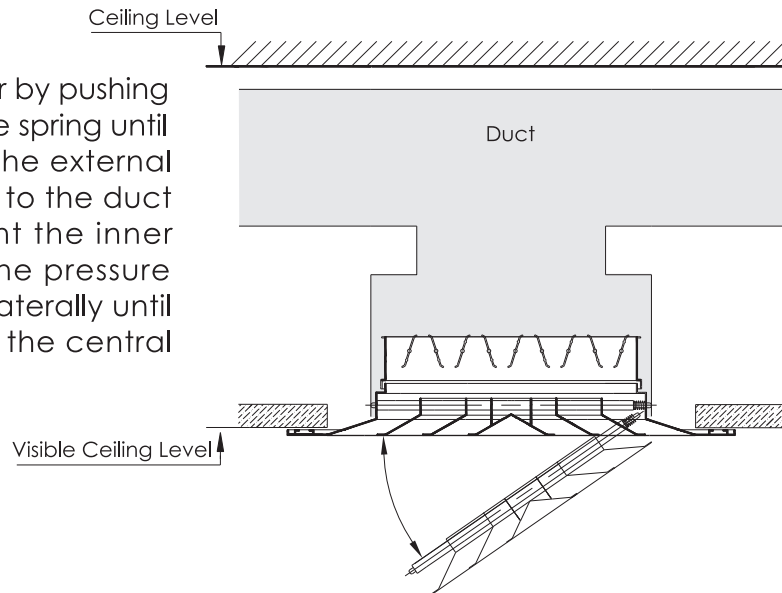


Diffuser Fixed with Neck Adaptor

Mounting Instructions

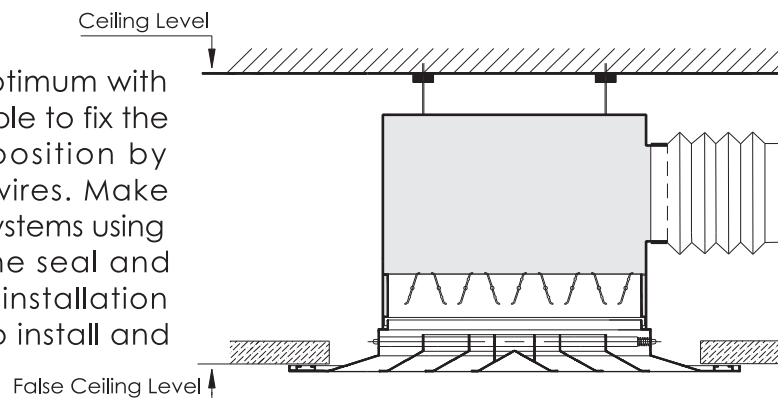
Installation With Connection To Duct

Extract the inner core of the diffuser by pushing laterally with respect to the pressure spring until the opposite side emerges from the external frame. Fix the neck of the diffuser to the duct using screws or rivets. Re - mount the inner core inside the frame inserting the pressure springs in their seats and pushing laterally until the opposite parts fix home align the central cones to the frame.



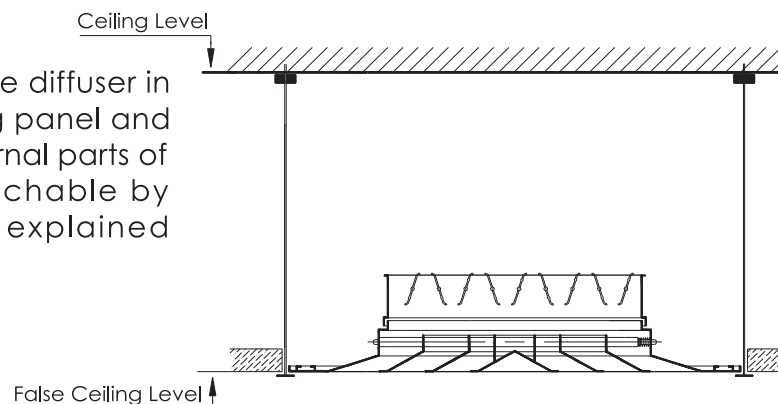
Installation With Suspended Supply Plenum Box

The use of the supply plenum is optimum with any type of false ceilings. It is possible to fix the supply plenum in the desired position by anchoring it to the system with wires. Make connections to the air distribution systems using spiral or flexible duct ensuring the seal and then allowing for ceiling diffuser installation and architectural finalities prior to install and regulate the damper.



Installation With Diffuser Resting In False Ceiling

In this case it is sufficient to rest the diffuser in the space reserved for the ceiling panel and connect it to the ducting. The internal parts of the diffuser will remain approachable by extracting the central core as explained previously.



CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Engineering and Performance Data

Effective Area Values for Square Ceiling Diffusers in (m²)

TABLE CD-05

| SIZE | | 1 Way-Discharge | | 2 Way-Discharge | | 3 Way-Discharge | | 4 Way-Discharge | |
|-----------|-----------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|
| mm | Inch | Supply | Return | Supply | Return | Supply | Return | Supply | Return |
| 150 X 150 | 6" x 6" | 0.007 | 0.007 | 0.006 | 0.006 | 0.006 | 0.006 | 0.007 | 0.007 |
| 200 X 200 | 8" x 8" | – | – | – | – | 0.011 | 0.010 | 0.013 | 0.011 |
| 225 X 225 | 9" x 9" | 0.017 | 0.015 | 0.015 | 0.013 | 0.015 | 0.013 | 0.017 | 0.015 |
| 300 X 300 | 12" x 12" | 0.032 | 0.026 | 0.030 | 0.024 | 0.030 | 0.024 | 0.032 | 0.026 |
| 375 X 375 | 15" x 15" | 0.050 | 0.039 | 0.048 | 0.037 | 0.048 | 0.037 | 0.050 | 0.039 |
| 450 X 450 | 18" x 18" | 0.074 | 0.055 | 0.071 | 0.053 | 0.071 | 0.053 | 0.074 | 0.055 |
| 500 X 500 | 20" x 20" | – | – | – | – | 0.079 | 0.068 | 0.089 | 0.070 |
| 525 X 525 | 21" x 21" | 0.102 | 0.074 | 0.099 | 0.072 | 0.099 | 0.072 | 0.102 | 0.074 |
| 600 X 600 | 24" x 24" | 0.135 | 0.095 | 0.131 | 0.092 | 0.131 | 0.092 | 0.135 | 0.095 |

- Damper at full open position.

Effective Area Values for Rectangular Ceiling Diffusers in (m²)

TABLE CD-06

| SIZE | | 1 Way-Discharge | | 2 Way-Discharge | | 3 Way-Discharge | | 4 Way-Discharge | |
|-----------|-----------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|
| mm | Inch | Supply | Return | Supply | Return | Supply | Return | Supply | Return |
| 225 X 150 | 9" x 6" | 0.010 | 0.009 | 0.010 | 0.009 | 0.009 | 0.008 | 0.009 | 0.008 |
| 300 X 150 | 12" x 6" | 0.014 | 0.010 | 0.014 | 0.010 | 0.011 | 0.010 | 0.011 | 0.010 |
| 300 X 225 | 12" x 9" | 0.022 | 0.019 | 0.022 | 0.019 | 0.012 | 0.011 | 0.020 | 0.017 |
| 375 X 150 | 15" x 6" | 0.018 | 0.015 | 0.018 | 0.015 | – | – | 0.016 | 0.014 |
| 375 X 225 | 15" x 9" | 0.028 | 0.023 | 0.028 | 0.023 | 0.026 | 0.021 | 0.026 | 0.021 |
| 375 X 300 | 15" x 12" | 0.039 | 0.030 | 0.039 | 0.030 | 0.037 | 0.029 | – | – |
| 450 X 150 | 18" x 6" | 0.022 | 0.019 | 0.022 | 0.019 | – | – | 0.020 | 0.017 |
| 450 X 225 | 18" x 9" | 0.034 | 0.026 | 0.034 | 0.026 | 0.031 | 0.025 | 0.031 | 0.025 |
| 450 X 300 | 18" x 12" | 0.047 | 0.037 | 0.047 | 0.037 | 0.044 | 0.035 | – | – |
| 450 X 375 | 18" x 15" | – | – | – | – | 0.058 | 0.044 | 0.058 | 0.044 |
| 525 X 225 | 21" x 9" | 0.040 | 0.032 | 0.040 | 0.032 | 0.037 | 0.030 | – | – |
| 525 X 300 | 21" x 12" | 0.056 | 0.043 | 0.056 | 0.043 | – | – | 0.052 | 0.040 |
| 525 X 375 | 21" x 15" | – | – | – | – | 0.068 | 0.051 | 0.068 | 0.051 |
| 525 X 450 | 21" x 18" | – | – | – | – | 0.083 | 0.061 | 0.083 | 0.061 |
| 600 X 450 | 24" x 18" | – | – | – | – | 0.096 | 0.070 | 0.096 | 0.070 |

- Damper at full open position.

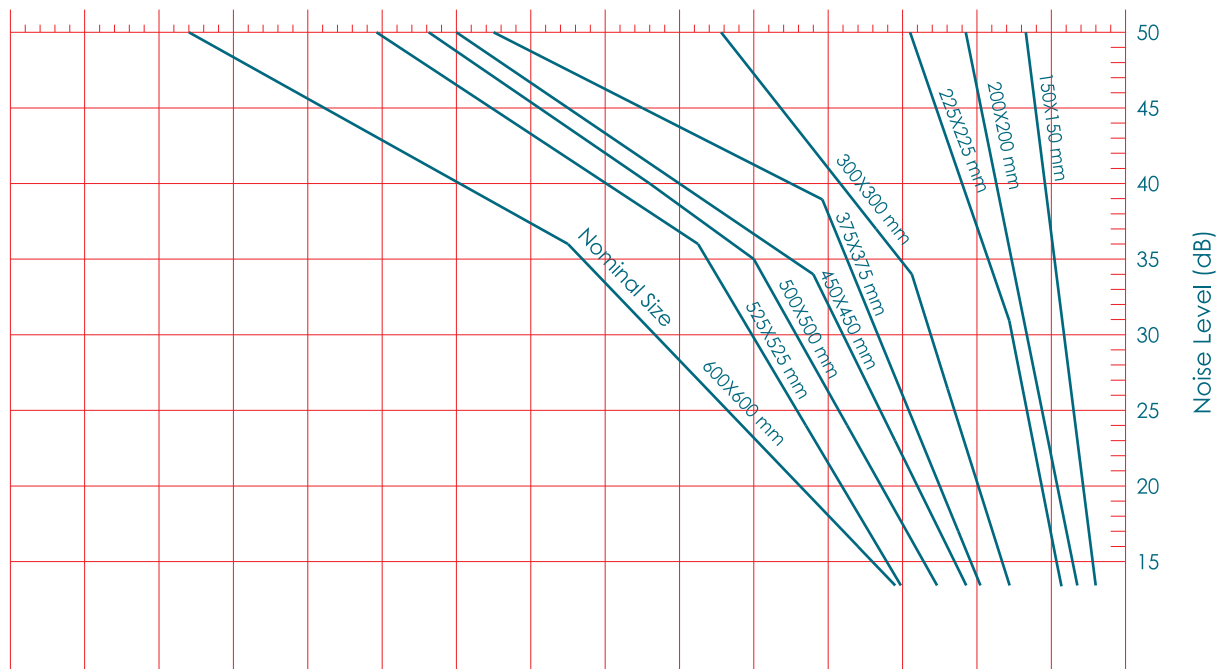
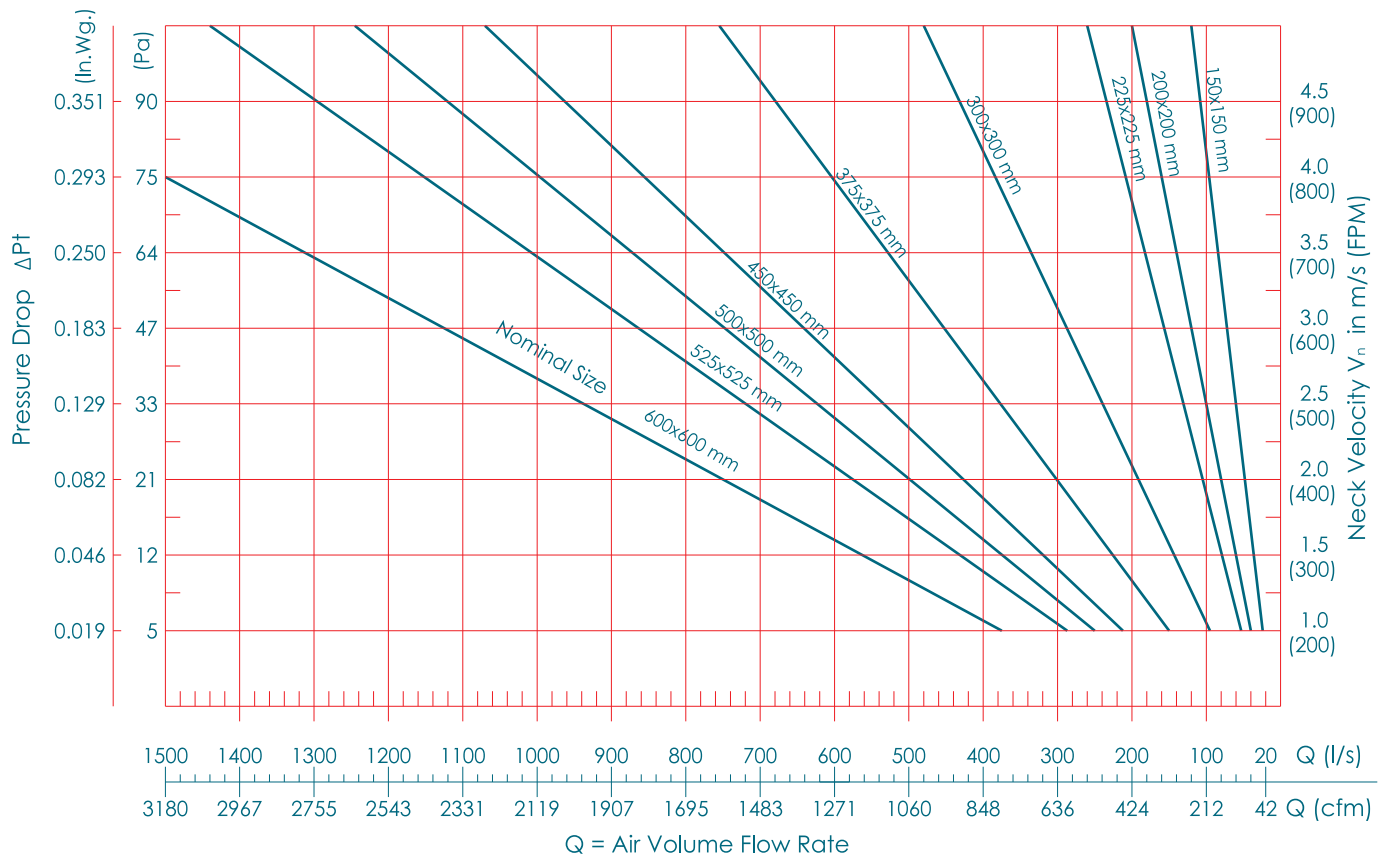
CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Engineering and Performance Data

Selection Diagrams for 1,2,3 & 4 Way Square Ceiling Diffuser

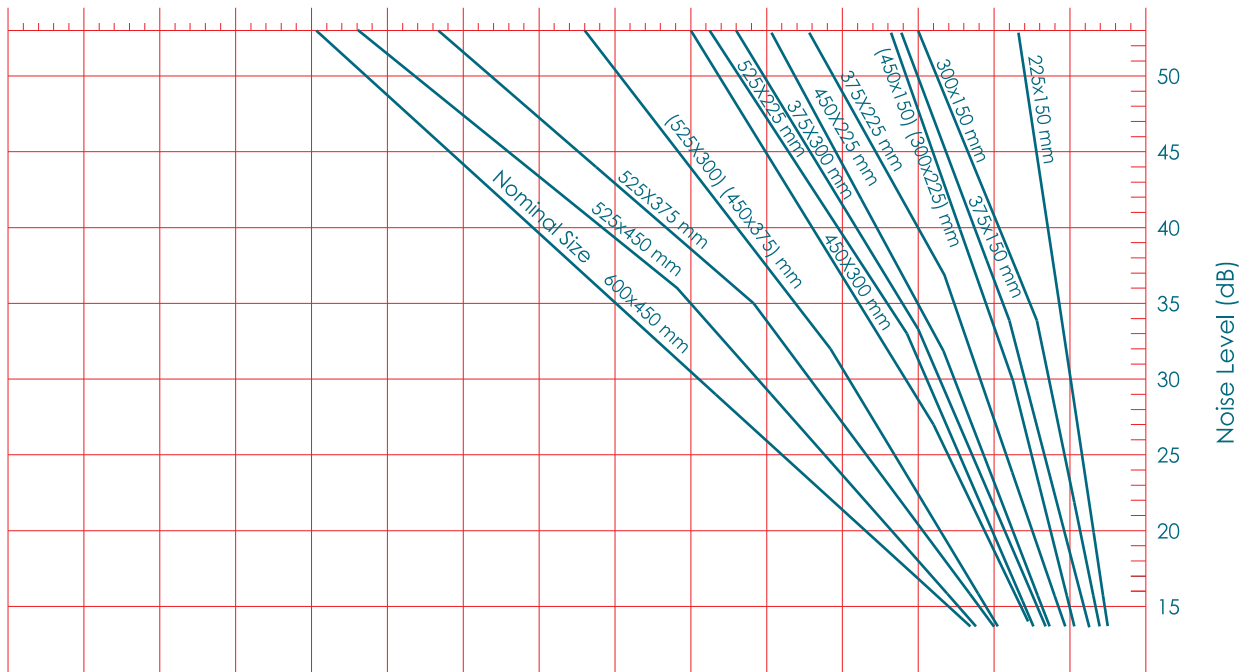
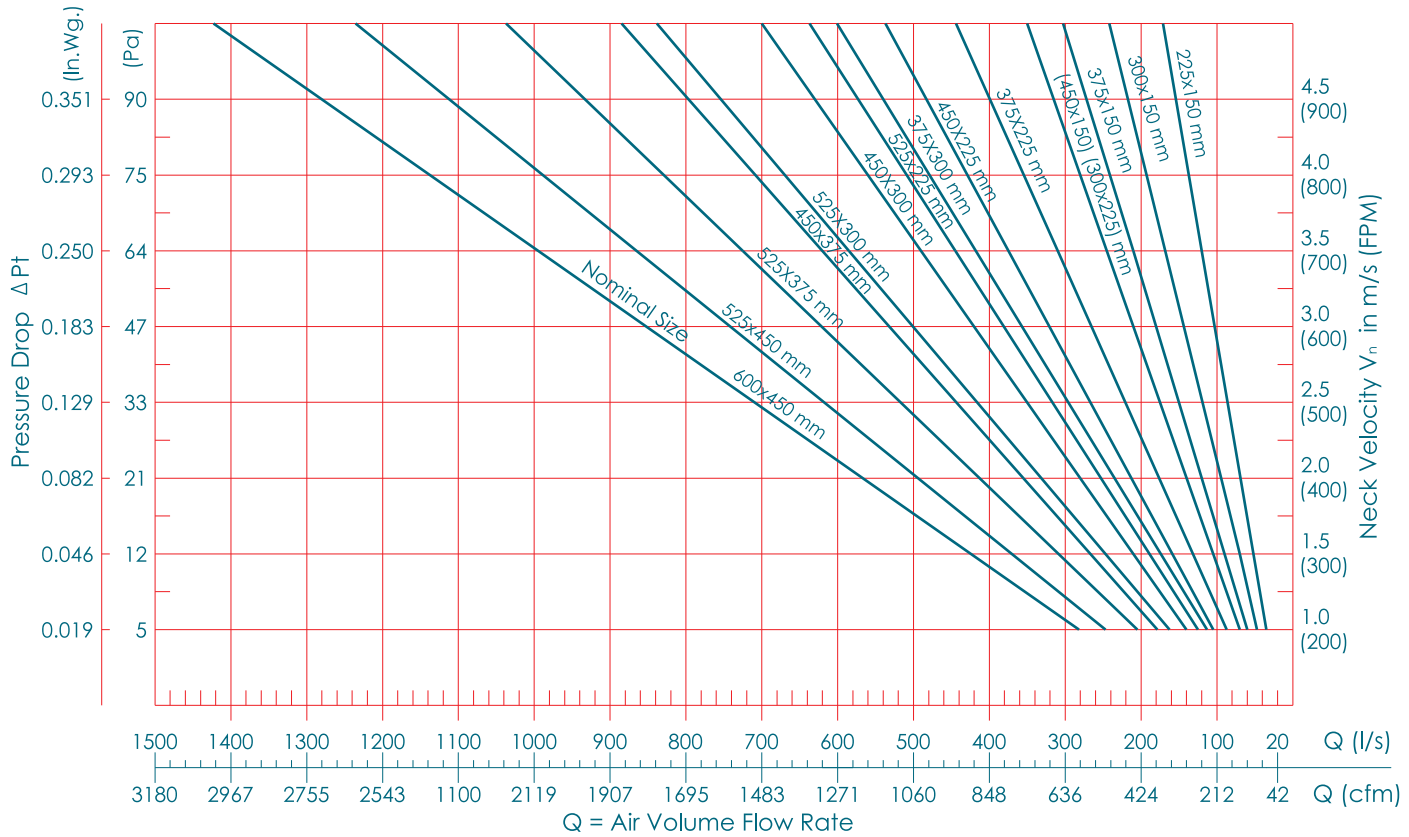


CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE Engineering and Performance Data

Selection Diagrams for 1,2,3 & 4 Way Rectangular Ceiling Diffuser

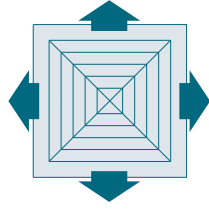


Correction Values for Noise Level :

| SIZE (mm) | V _n (m/s) | NC |
|-----------|----------------------|-----|
| 450 x 375 | 1.0 - 2.75 | + 2 |
| 450 x 375 | 3.0 - 3.50 | + 1 |

Availability of Rectangular Diffuser Sizes with respect to it's discharge directions :

| SIZE Pattern | 225 X 150 | 300 X 150 | 375 X 150 | 450 X 150 | 300 X 225 | 375 X 225 | 450 X 225 | 525 X 300 | 450 X 375 | 525 X 375 | 525 X 450 | 600 X 450 | 525 X 225 | 375 X 300 | 450 X 300 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 4WR | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| 3WR | ● | ● | | | ● | ● | ● | | ● | ● | ● | ● | ● | ● | ● |
| 2WR | ● | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | ● |
| 1WR | ● | ● | ● | ● | ● | ● | ● | ● | | | | | ● | ● | ● |



Model 4WS

CEILING DIFFUSERS

Engineering & Performance Data

Tabular Selection for 4 Way Square Diffusers - Model 4WS

TABLE CD-07

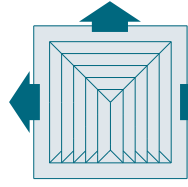
| SIZE | A _{eff.} (m ²) | V _n FPM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) |
|-----------|--|-------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| mm | Inch | ΔP_t Inwg (Pa) | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) |
| 150 x 150 | 6" x 6" | L/S (CFM) Th. (m) Noise Level | 23 (48) 0.6-0.9-1.6 <15 | 29 (61) 0.7-1.0-2.2 <15 | 34 (73) 0.9-1.2-2.8 <15 | 40 (85) 1.0-1.3-3.1 <15 | 46 (97) 1.1-1.5-3.5 16 | 51 (109) 1.2-1.7-3.6 19 | 57 (121) 1.4-2.1-3.8 21 | 63 (133) 1.5-2.4-4.0 24 | 69 (145) 1.7-2.9-4.3 26 | 74 (157) 1.9-3.1-4.4 28 | 80 (170) 2.3-3.5-4.6 31 |
| 200 x 200 | 8" x 8" | L/S (CFM) Th. (m) Noise Level | 41 (86) 0.8-1.3-2.2 <15 | 51 (108) 0.9-1.4-2.4 <15 | 61 (129) 1.0-1.5-2.6 <15 | 71 (151) 1.2-1.6-3.2 15 | 81 (172) 1.5-1.8-3.8 17 | 91 (194) 1.6-2.0-4.0 20 | 102 (215) 1.7-2.1-4.4 22 | 112 (237) 1.8-2.4-4.6 25 | 122 (258) 1.9-2.8-5.0 27 | 132 (280) 2.1-3.1-5.1 29 | 142 (301) 2.4-3.6-5.2 32 |
| 225 x 225 | 9" x 9" | L/S (CFM) Th. (m) Noise Level | 51 (109) 0.7-1.1-3.2 <15 | 64 (136) 0.9-1.4-2.4 <15 | 77 (163) 1.0-1.5-2.6 <15 | 90 (191) 1.2-1.6-3.2 15 | 103 (218) 1.5-2.0-4.0 18 | 116 (245) 1.8-2.3-4.6 21 | 129 (272) 1.9-2.4-4.7 24 | 141 (300) 2.0-2.9-5.0 28 | 154 (327) 2.2-3.6-5.3 31 | 167 (354) 2.4-3.8-5.4 33 | 180 (381) 2.9-4.2-5.6 35 |
| 300 x 300 | 12"x12" | L/S (CFM) Th. (m) Noise Level | 91 (194) 1.1-1.7-3.3 <15 | 114 (242) 1.4-2.0-3.8 <15 | 137 (291) 1.7-2.3-4.5 <15 | 160 (339) 1.8-2.4-4.6 15 | 183 (388) 2.0-2.5-4.8 19 | 206 (436) 2.2-3.0-5.1 23 | 229 (484) 2.4-3.7-5.5 27 | 251 (533) 2.7-4.0-5.7 30 | 274 (581) 3.2-4.4-6.0 34 | 297 (630) 3.4-4.5-6.4 36 | 320 (678) 3.6-4.7-6.6 37 |
| 375 x 375 | 15"x15" | L/S (CFM) Th. (m) Noise Level | 143 (303) 1.5-2.0-3.8 <15 | 179 (378) 1.7-2.4-4.2 <15 | 214 (454) 2.0-2.8-4.7 17 | 250 (530) 2.2-3.2-5.1 22 | 286 (605) 2.5-3.9-5.6 26 | 321 (681) 2.9-4.0-5.8 31 | 357 (757) 3.1-4.3-6.1 35 | 393 (832) 3.5-4.5-6.4 39 | 429 (908) 3.9-4.8-6.8 40 | 464 (984) 4.2-5.1-7.1 41 | 500 (1095) 4.5-5.3-7.5 42 |
| 450 x 450 | 18"x18" | L/S (CFM) Th. (m) Noise Level | 206 (436) 1.7-2.3-4.5 <15 | 257 (545) 1.9-2.8-4.9 19 | 309 (654) 2.2-3.5-5.4 24 | 360 (763) 2.6-4.0-5.7 29 | 411 (872) 3.2-4.5-6.3 33 | 463 (981) 3.4-4.6-6.5 34 | 514 (1090) 3.7-4.8-6.7 38 | 566 (1199) 4.0-5.1-7.1 40 | 617 (1308) 4.4-5.4-7.5 41 | 669 (1417) 4.5-5.5-7.7 43 | 720 (1526) 4.7-5.6-8.0 45 |
| 500 x 500 | 20"x20" | L/S (CFM) Th. (m) Noise Level | 254 (538) 1.8-2.4-4.8 <15 | 318 (673) 2.1-2.5-5.2 19 | 381 (807) 2.4-2.6-5.6 24 | 445 (942) 2.7-2.8-5.8 29 | 508 (1077) 3.3-3.4-6.2 35 | 572 (1211) 3.5-4.7-6.6 37 | 635 (1346) 3.9-5.0-6.9 39 | 699 (1480) 4.2-5.2-7.3 41 | 762 (1615) 4.5-5.5-7.7 44 | 826 (1749) 4.6-5.7-7.9 46 | 889 (1884) 4.9-6.0-8.3 49 |
| 525 x 525 | 21"x21" | L/S (CFM) Th. (m) Noise Level | 281 (595) 1.9-2.9-4.8 <15 | 351 (744) 2.3-3.2-5.2 20 | 421 (893) 2.8-3.6-5.6 24 | 492 (1042) 3.1-4.0-6.0 30 | 562 (1191) 3.6-4.7-6.5 36 | 632 (1339) 3.9-4.9-6.7 38 | 702 (1488) 4.3-5.2-7.2 41 | 773 (1637) 4.5-5.4-7.5 43 | 843 (1786) 4.7-5.6-8.0 45 | 913 (1935) 4.8-5.9-8.3 48 | 983 (2084) 5.1-6.3-8.7 50 |
| 600 x 600 | 24"x24" | L/S (CFM) Th. (m) Noise Level | 366 (775) 2.3-3.2-5.0 17 | 457 (969) 2.6-3.8-5.9 22 | 549 (1163) 3.3-4.5-6.3 27 | 640 (1356) 3.6-4.7-6.6 31 | 732 (1550) 4.2-5.1-7.2 36 | 823 (1744) 4.4-5.3-7.3 39 | 914 (1938) 4.6-5.5-7.6 41 | 1006 (2131) 4.8-5.7-8.0 44 | 1097 (2325) 5.0-5.9-8.7 46 | 1189 (2519) 5.1-6.2-9.1 49 | 1280 (2713) 5.3-6.6-9.5 52 |

Noise level values are based on 10 dB room attenuation.

- S : Supply Air (Damper is fully open).
- R : Return Air.
- A_{eff.} : Effective Area.
- V_n : Neck Velocity.
- ΔP_t : Total Pressure Drop.
- Th. : Throw distance measured at Terminal Velocity V_t = 0.75, 0.50 & 0.25 m/s respectively.

Correction Multipliers and Values :

| Damper Opening Position | Noise Level (Additional) | Pressure Drop ΔP_t (Multiplier) |
|-------------------------|--------------------------|---|
| 25 % open | + 10 dB | x 2.4 |
| 50 % open | + 5 dB | x 1.4 |
| 100 % open | + 0 dB | x 1.0 |



Model 3WS

CEILING DIFFUSERS

Engineering & Performance Data

Tabular Selection for 3 Way Square Diffusers - Model 3WS

TABLE CD-08

| SIZE | A _{eff.} (m ²) | V _n FPM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-----------------------------|--|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 150 x 150 | 6" x 6" | 0.006 S 0.006 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 200 x 200 | 8" x 8" | 0.011 S 0.010 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 225 x 225 | 9" x 9" | 0.015 S 0.013 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 300 x 300 | 12"x12" | 0.030 S 0.024 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 375 x 375 | 15"x15" | 0.048 S 0.037 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 450 x 450 | 18"x18" | 0.071 S 0.053 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 500 x 500 | 20"x20" | 0.079 S 0.068 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 525 x 525 | 21"x21" | 0.099 S 0.072 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |
| 600 x 600 | 24"x24" | 0.131 S 0.092 R | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (165) | 84 (178) | 84 (178) |
| | | | L/S (CFM) Thx (m) Thy (m) Noise Level | 0.7-1.0-1.6 0.8-1.1-2.3 <15 | 0.9-1.1-2.2 1.0-1.4-2.6 <15 | 1.1-1.2-2.9 1.2-1.8-3.2 <15 | 1.2-1.4-3.2 1.3-2.0-3.5 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 | 1.3-1.7-3.3 1.5-2.3-3.7 15 |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.

CEILING DIFFUSERS

Engineering & Performance Data

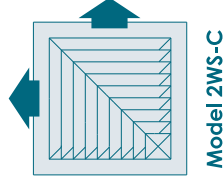
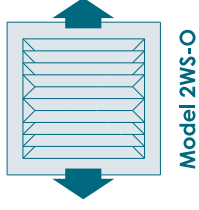
Tabular Selection for 2 Way Square Diffusers - Model 2WS-O and 2WS-C

TABLE CD-09

| SIZE | A _{eff.} (m ²) | V _n FPM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) |
|-----------|--|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| mm | Inch | ΔP_{fining} (Pa) | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) |
| 150 x 150 | 6" x 6" | L/S (CFM) | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (153) | 84 (178) |
| | | Th. (m) | 0.8-1.0-2.5 | 1.0-1.4-2.9 | 1.2-2.0-3.5 | 1.5-2.3-3.9 | 1.8-2.6-4.3 | 2.2-3.0-4.0 | 2.4-3.3-4.4 | 2.6-3.5-4.7 | 2.8-3.7-5.1 | 3.1-3.8-5.4 | 3.4-3.9-5.8 |
| | | Noise Level | <15 | <15 | <15 | <15 | 16 | 19 | 21 | 24 | 26 | 28 | 31 |
| 225 x 225 | 9" x 9" | L/S (CFM) | 53 (112) | 68 (144) | 80 (170) | 92 (195) | 105 (222) | 118 (250) | 130 (275) | 143 (303) | 160 (339) | 170 (360) | 185 (392) |
| | | Th. (m) | 1.0-1.7-3.3 | 1.3-2.1-3.8 | 1.6-2.6-4.5 | 1.9-2.9-4.7 | 2.3-3.3-5.1 | 2.6-3.7-5.4 | 2.9-4.2-5.7 | 3.1-4.3-6.0 | 3.3-4.5-6.3 | 3.5-4.6-6.5 | 3.9-4.8-6.9 |
| | | Noise Level | <15 | <15 | <15 | 15 | 18 | 21 | 24 | 28 | 31 | 33 | 35 |
| 300 x 300 | 12"x12" | L/S (CFM) | 95 (201) | 120 (254) | 140 (297) | 168 (356) | 190 (402) | 218 (462) | 240 (509) | 263 (557) | 285 (604) | 312 (661) | 338 (716) |
| | | Th. (m) | 1.7-2.3-4.2 | 2.0-2.6-4.5 | 2.3-3.3-5.2 | 2.6-3.7-5.6 | 3.1-4.2-6.0 | 3.4-4.5-6.3 | 3.7-4.9-6.6 | 3.9-5.0-6.9 | 4.2-5.1-7.3 | 4.3-5.5-7.6 | 4.5-5.9-7.9 |
| | | Noise Level | <15 | <15 | <15 | 15 | 19 | 23 | 27 | 30 | 34 | 36 | 37 |
| 375 x 375 | 15"x15" | L/S (CFM) | 150 (317) | 188 (398) | 225 (477) | 265 (562) | 300 (636) | 340 (720) | 375 (795) | 415 (879) | 450 (954) | 490 (1038) | 528 (1119) |
| | | Th. (m) | 2.0-2.8-4.7 | 2.7-3.5-5.2 | 3.0-4.2-5.7 | 3.5-4.5-6.1 | 4.0-4.8-6.6 | 4.2-5.2-7.0 | 4.5-5.5-7.5 | 4.6-5.4-7.7 | 4.8-5.9-8.1 | 4.9-6.1-8.4 | 5.1-6.3-8.7 |
| | | Noise Level | <15 | <15 | 17 | 22 | 26 | 31 | 35 | 39 | 40 | 41 | 42 |
| 450 x 450 | 18"x18" | L/S (CFM) | 212 (449) | 268 (568) | 320 (678) | 373 (790) | 425 (900) | 480 (1017) | 530 (1123) | 588 (1246) | 640 (1356) | 695 (1473) | 750 (1589) |
| | | Th. (m) | 2.3-3.4-5.1 | 2.9-3.8-5.6 | 3.3-4.4-6.3 | 3.7-4.7-6.7 | 4.2-5.1-7.2 | 4.5-5.4-7.8 | 4.8-5.7-8.1 | 4.9-6.0-8.3 | 5.1-6.3-8.6 | 5.4-6.6-9.2 | 5.7-6.9-9.8 |
| | | Noise Level | <15 | 19 | 24 | 29 | 34 | 33 | 38 | 40 | 41 | 43 | 45 |
| 525 x 525 | 21"x21" | L/S (CFM) | 287 (608) | 360 (762) | 430 (911) | 505 (1070) | 575 (1218) | 645 (1367) | 720 (1526) | 792 (1678) | 860 (1822) | 915 (1940) | 1000 (2119) |
| | | Th. (m) | 2.7-3.8-5.7 | 3.2-4.2-6.3 | 3.8-4.7-6.9 | 4.3-5.2-7.4 | 4.8-5.7-7.9 | 4.9-5.9-8.0 | 5.0-6.0-8.3 | 5.1-6.2-8.5 | 5.2-6.4-8.7 | 5.6-6.9-9.5 | 6.0-7.5-10.3 |
| | | Noise Level | <15 | 20 | 24 | 30 | 36 | 38 | 41 | 43 | 45 | 48 | 50 |
| 600 x 600 | 24"x24" | L/S (CFM) | 375 (795) | 470 (996) | 560 (1187) | 658 (1394) | 750 (1589) | 843 (1786) | 940 (1992) | 1031 (2185) | 1120 (2373) | 1220 (2585) | 1312 (2780) |
| | | Th. (m) | 2.8-4.1-6.0 | 3.5-4.6-6.5 | 4.3-5.1-7.1 | 4.6-5.5-7.6 | 5.1-6.0-8.5 | 5.3-6.3-9.1 | 5.5-6.6-9.5 | 5.7-6.8-10.2 | 6.0-7.3-10.4 | 6.3-7.6-10.8 | 6.6-7.9-11.3 |
| | | Noise Level | 17 | 22 | 27 | 31 | 36 | 39 | 41 | 44 | 46 | 49 | 52 |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.



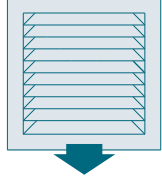
CEILING DIFFUSERS

Engineering & Performance Data

Tabular Selection for 1 Way Square Diffusers - Model 1WS

TABLE CD-10

| SIZE | A _{eff.} (m ²) | V _n FFM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| mm | Inch | ΔP_{finwg} (Pa) | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| 150 x 150 | 6" x 6" | L/S (CFM) | 24 (51) | 30 (64) | 38 (81) | 40 (85) | 48 (102) | 54 (114) | 60 (127) | 66 (140) | 72 (153) | 78 (153) | 84 (178) | |
| | | Th. (m) | 1.3-1.7-3.7 | 1.4-2.2-4.1 | 1.6-2.8-4.3 | 1.8-2.9-4.5 | 2.8-3.6-4.9 | 3.0-3.8-5.3 | 3.2-4.0-5.7 | 3.4-4.3-6.1 | 3.6-4.5-6.4 | 3.8-4.7-6.6 | 3.9-4.8-6.8 | 3.9-4.8-6.8 |
| | | Noise Level | <15 | <15 | <15 | <15 | 16 | 19 | 21 | 24 | 26 | 28 | 28 | 31 |
| 225 x 225 | 9" x 9" | L/S (CFM) | 53 (112) | 68 (144) | 80 (170) | 92 (195) | 105 (222) | 118 (250) | 130 (275) | 143 (303) | 160 (339) | 170 (360) | 185 (392) | |
| | | Th. (m) | 1.8-2.3-4.6 | 2.1-2.8-4.8 | 2.2-3.4-5.2 | 2.3-3.7-5.5 | 3.3-4.4-6.0 | 3.6-4.6-6.5 | 3.9-4.8-7.0 | 4.2-5.1-7.3 | 4.5-5.4-7.6 | 4.6-5.5-7.9 | 4.8-5.7-8.2 | 4.8-5.7-8.2 |
| | | Noise Level | <15 | <15 | <15 | 15 | 18 | 21 | 24 | 28 | 31 | 33 | 33 | 35 |
| 300 x 300 | 12" x 12" | L/S (CFM) | 95 (201) | 120 (254) | 140 (297) | 168 (356) | 190 (402) | 218 (462) | 240 (509) | 263 (557) | 285 (604) | 312 (661) | 338 (716) | |
| | | Th. (m) | 2.3-3.6-5.3 | 2.7-3.9-5.4 | 3.1-4.3-5.8 | 3.3-4.5-6.2 | 4.4-5.1-7.0 | 4.6-5.4-7.3 | 4.8-5.7-7.8 | 4.9-5.9-8.3 | 5.1-6.0-8.8 | 5.3-6.4-9.1 | 5.5-6.6-9.5 | 5.5-6.6-9.5 |
| | | Noise Level | <15 | <15 | <15 | 15 | 19 | 23 | 27 | 30 | 34 | 36 | 36 | 37 |
| 375 x 375 | 15" x 15" | L/S (CFM) | 150 (317) | 188 (398) | 225 (477) | 265 (562) | 300 (636) | 340 (720) | 375 (795) | 415 (879) | 450 (954) | 490 (1038) | 528 (1119) | |
| | | Th. (m) | 2.6-3.9-6.0 | 3.2-4.3-6.3 | 3.7-4.6-6.7 | 3.9-4.8-6.9 | 4.8-5.7-7.8 | 5.0-6.0-8.3 | 5.1-6.3-8.7 | 5.4-6.5-9.2 | 5.7-7.1-9.8 | 5.8-7.3-10.1 | 6.0-7.5-10.5 | 6.0-7.5-10.5 |
| | | Noise Level | <15 | <15 | 17 | 22 | 26 | 31 | 35 | 39 | 40 | 41 | 41 | 42 |
| 450 x 450 | 18" x 18" | L/S (CFM) | 212 (449) | 268 (568) | 320 (678) | 373 (790) | 425 (900) | 480 (1017) | 530 (1123) | 588 (1246) | 640 (1356) | 695 (1473) | 750 (1589) | |
| | | Th. (m) | 3.3-4.5-6.3 | 3.8-4.8-6.8 | 4.3-5.2-7.3 | 4.5-5.5-7.5 | 5.1-6.3-8.0 | 5.4-6.5-8.8 | 5.7-7.0-9.7 | 6.0-7.3-10.3 | 6.3-7.5-10.6 | 6.5-7.7-11.1 | 6.6-8.1-11.5 | 6.6-8.1-11.5 |
| | | Noise Level | <15 | 19 | 24 | 29 | 34 | 33 | 38 | 40 | 41 | 43 | 43 | 45 |
| 525 x 525 | 21" x 21" | L/S (CFM) | 287 (608) | 360 (762) | 430 (911) | 505 (1070) | 575 (1218) | 645 (1367) | 720 (1526) | 792 (1678) | 860 (1822) | 915 (1940) | 1000 (2119) | |
| | | Th. (m) | 3.7-4.8-6.6 | 4.1-5.1-7.0 | 4.6-5.5-7.4 | 4.7-5.8-7.6 | 5.3-6.6-9.5 | 5.6-7.1-10 | 6.0-7.5-10.3 | 6-4-7.7-10.9 | 6.7-8.1-11.5 | 7.0-8.6-12 | 7.0-9.0-12.5 | 7.0-9.0-12.5 |
| | | Noise Level | <15 | 20 | 24 | 30 | 36 | 38 | 41 | 43 | 45 | 48 | 48 | 50 |
| 600 x 600 | 24" x 24" | L/S (CFM) | 375 (795) | 470 (996) | 560 (1187) | 658 (1394) | 750 (1589) | 843 (1786) | 940 (1992) | 1031 (2185) | 1120 (2373) | 1220 (2585) | 1312 (2780) | |
| | | Th. (m) | 4.3-5.1-7.2 | 4.6-5.5-7.8 | 4.9-6.1-8.5 | 5.1-6.3-8.8 | 5.7-7.3-10 | 6.1-7.6-10.6 | 6.7-8-11.3 | 6.9-8.2-11.7 | 7.2-8.7-12.2 | 7.4-9.1-12.6 | 7.6-9.5-13.1 | 7.6-9.5-13.1 |
| | | Noise Level | 17 | 22 | 27 | 31 | 36 | 39 | 41 | 44 | 46 | 49 | 49 | 52 |



Model 1WS

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.

CEILING DIFFUSERS

Engineering & Performance Data

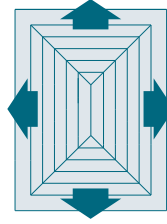
Tabular Selection for 4 Way Rectangular Diffusers - Model 4WR

TABLE CD-11

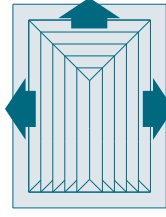
| SIZE | A _{eff.} (m ²) | V _n FPM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-------------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 225 x 150 | 0.009 S 0.008 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 35 (74) | 43 (91) | 52 (110) | 60 (127) | 70 (148) | 79 (167) | 91 (193) | 95 (201) | 103 (218) | 111 (235) | 120 (254) | 120 (254) |
| | | | 0.5-0.8-1.6 1.1-1.3-2.6 <15 | 0.7-1.0-2.2 1.2-1.5-3.9 <15 | 0.9-1.1-2.9 1.3-1.7-4.2 15 | 1.0-1.3-3.3 1.5-2.1-4.3 17 | 1.1-1.6-3.7 1.7-2.6-4.4 20 | 1.2-1.9-3.8 1.8-3.2-4.6 23 | 1.3-2.1-3.9 1.9-3.6-4.8 26 | 1.5-2.4-4.2 2.4-3.9-5.2 28 | 1.7-2.8-4.4 2.5-4.1-5.4 31 | 1.9-3.2-4.5 2.8-4.5-5.6 34 | 2.2-3.4-4.6 3.2-4.9-6.4 37 | 2.3-3.4-4.6 3.6-4.3-5.9 37 |
| 300 x 150 | 0.011 S 0.010 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 47 (100) | 49 (104) | 70 (148) | 82 (174) | 95 (201) | 105 (222) | 120 (254) | 130 (275) | 143 (303) | 156 (330) | 168 (356) | 168 (356) |
| | | | 0.5-0.8-1.6 1.1-1.6-2.9 <15 | 0.7-1.0-2.2 1.4-1.8-3.5 <15 | 0.9-1.1-2.9 1.6-1.9-4.3 16 | 1.0-1.3-3.3 1.7-2.4-4.5 19 | 1.1-1.6-3.7 1.9-2.9-4.9 22 | 1.2-1.9-3.8 2.1-3.3-4.1 25 | 1.3-2.1-3.9 2.4-3.7-5.2 28 | 1.5-2.4-4.2 2.7-3.9-5.7 31 | 1.7-2.8-4.4 3.1-4.2-6.1 34 | 1.9-3.2-4.5 3.7-4.4-6.3 36 | 2.2-3.4-4.6 4.1-4.5-6.4 37 | 2.3-3.4-4.6 4.1-4.5-6.4 37 |
| 375 x 150 | 0.016 S 0.014 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 60 (127) | 75 (159) | 90 (191) | 105 (222) | 120 (254) | 135 (286) | 150 (318) | 165 (350) | 180 (381) | 195 (413) | 210 (445) | 210 (445) |
| | | | 0.5-0.8-1.6 1.4-1.7-3.2 <15 | 0.7-1.0-2.2 1.6-2.0-3.8 <15 | 0.9-1.1-2.9 1.7-2.3-4.4 16 | 1.0-1.3-3.3 1.8-2.8-4.7 20 | 1.1-1.6-3.7 1.9-3.5-5.1 23 | 1.2-1.9-3.8 2.3-3.7-5.3 26 | 1.3-2.1-3.9 2.6-4.0-5.5 28 | 1.5-2.4-4.2 2.9-4.3-5.8 31 | 1.7-2.8-4.4 3.2-4.5-6.1 34 | 1.9-3.2-4.5 3.5-4.7-6.4 36 | 2.2-3.4-4.6 4.1-4.5-6.4 37 | 2.3-3.4-4.6 4.1-4.5-6.4 37 |
| 450 x 150 | 0.020 S 0.017 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 70 (148) | 87 (184) | 105 (222) | 123 (261) | 140 (297) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | 245 (519) |
| | | | 0.5-0.8-1.6 1.5-1.8-3.3 <15 | 0.7-1.0-2.2 1.6-2.0-3.8 <15 | 0.9-1.1-2.9 1.7-2.2-4.7 16 | 1.0-1.3-3.3 1.8-2.8-4.8 20 | 1.1-1.6-3.7 2.1-3.5-5.1 23 | 1.2-1.9-3.8 2.5-3.9-5.4 27 | 1.3-2.1-3.9 2.9-4.3-5.8 30 | 1.5-2.4-4.2 3.3-4.6-6.2 33 | 1.7-2.8-4.4 3.7-4.8-6.2 35 | 1.9-3.2-4.5 4.0-5.5-6.5 37 | 2.2-3.4-4.6 4.7-6.2-6.9 40 | 2.3-3.6-5.3 4.1-5.5-6.6 37 |
| 300 x 225 | 0.020 S 0.017 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 70 (148) | 87 (184) | 105 (222) | 123 (261) | 140 (297) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | 245 (519) |
| | | | 0.5-0.8-1.6 1.5-1.8-3.3 <15 | 0.7-1.0-2.2 1.6-2.0-3.8 <15 | 0.9-1.1-2.9 1.7-2.2-4.7 16 | 1.0-1.3-3.3 1.8-2.8-4.8 20 | 1.1-1.6-3.7 2.1-3.5-5.1 23 | 1.2-1.9-3.8 2.5-3.9-5.4 27 | 1.3-2.1-3.9 2.9-4.3-5.8 30 | 1.5-2.4-4.2 3.3-4.6-6.2 33 | 1.7-2.8-4.4 3.7-4.8-6.2 35 | 1.9-3.2-4.5 4.0-5.5-6.5 37 | 2.2-3.4-4.6 4.7-6.2-6.9 40 | 2.3-3.6-5.3 4.1-5.5-6.6 37 |
| 375 x 225 | 0.026 S 0.021 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 87 (184) | 110 (233) | 131 (278) | 156 (331) | 177 (375) | 199 (422) | 220 (466) | 243 (515) | 265 (562) | 287 (608) | 310 (657) | 310 (657) |
| | | | 0.5-0.8-1.6 1.6-2.2-3.7 <15 | 0.7-1.0-2.2 1.8-2.4-4.2 <15 | 0.9-1.1-2.9 2.2-2.6-4.8 18 | 1.0-1.3-3.3 2.3-3.1-5.0 21 | 1.1-1.6-3.7 2.4-3.7-5.3 24 | 1.2-1.9-3.8 2.7-4.0-5.6 27 | 1.3-2.1-3.9 3.0-4.4-5.9 31 | 1.5-2.4-4.2 3.2-4.6-6.2 34 | 1.7-2.8-4.4 3.5-4.9-6.7 37 | 1.9-3.2-4.5 4.2-5.1-6.9 39 | 2.2-3.4-4.6 4.5-5.3-7.4 41 | 2.3-3.6-5.3 4.3-5.2-7.2 40 |
| 450 x 225 | 0.031 S 0.025 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 105 (222) | 132 (280) | 160 (339) | 186 (394) | 213 (451) | 240 (509) | 267 (566) | 294 (623) | 320 (678) | 328 (695) | 375 (795) | 375 (795) |
| | | | 0.5-0.8-1.6 1.6-2.3-4.1 <15 | 0.7-1.0-2.2 1.9-2.6-4.5 <15 | 0.9-1.1-2.9 2.3-2.9-5.2 18 | 1.0-1.3-3.3 2.4-3.5-5.5 22 | 1.1-1.6-3.7 2.5-4.2-5.6 25 | 1.2-1.9-3.8 3.0-4.3-5.8 28 | 1.3-2.1-3.9 3.5-4.4-6.2 32 | 1.5-2.4-4.2 4.2-5.1-6.9 34 | 1.7-2.8-4.4 4.5-5.3-7.4 37 | 1.9-3.2-4.5 4.8-5.7-7.8 40 | 2.2-3.4-4.6 5.3-6.2-7.4 42 | 2.3-3.6-5.3 4.3-5.2-7.2 40 |
| 525 x 300 | 0.052 S 0.040 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 163 (345) | 205 (434) | 252 (534) | 290 (615) | 330 (699) | 374 (793) | 415 (879) | 460 (975) | 500 (1060) | 542 (1148) | 585 (1240) | 585 (1240) |
| | | | 0.5-0.8-1.6 1.8-2.7-4.4 <15 | 0.7-1.0-2.2 2.0-2.9-4.9 <15 | 0.9-1.1-2.9 2.3-3.3-4.8 18 | 1.0-1.3-3.3 2.6-4.0-5.7 22 | 1.1-1.6-3.7 3.2-4.6-6.2 25 | 1.2-1.9-3.8 3.6-4.7-6.6 29 | 1.3-2.1-3.9 4.2-5.1-6.9 32 | 1.5-2.4-4.2 4.5-5.3-7.4 35 | 1.7-2.8-4.4 4.8-5.7-7.8 38 | 1.9-3.2-4.5 5.3-6.2-7.4 40 | 2.2-3.4-4.6 6.2-7.1-8.1 43 | 2.3-3.6-5.3 4.5-5.4-7.6 43 |
| 450 x 375 | 0.058 S 0.044 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 178 (377) | 222 (470) | 265 (562) | 310 (657) | 355 (752) | 400 (848) | 445 (943) | 487 (1032) | 532 (1127) | 576 (1221) | 620 (1314) | 620 (1314) |
| | | | 0.5-0.8-1.6 1.8-2.3-4.4 <15 | 0.7-1.0-2.2 2.0-2.9-4.9 <15 | 0.9-1.1-2.9 2.3-3.3-4.8 18 | 1.0-1.3-3.3 2.6-4.0-5.7 22 | 1.1-1.6-3.7 3.2-4.6-6.2 25 | 1.2-1.9-3.8 3.6-4.7-6.6 29 | 1.3-2.1-3.9 4.2-5.1-6.9 32 | 1.5-2.4-4.2 4.5-5.3-7.4 35 | 1.7-2.8-4.4 4.8-5.7-7.8 38 | 1.9-3.2-4.5 5.3-6.2-7.4 40 | 2.2-3.4-4.6 6.2-7.1-8.1 43 | 2.3-3.6-5.3 4.5-5.4-7.6 43 |
| 525 x 375 | 0.068 S 0.051 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 205 (434) | 257 (545) | 309 (655) | 361 (765) | 412 (873) | 465 (985) | 517 (1096) | 569 (1206) | 619 (1312) | 673 (1426) | 725 (1536) | 725 (1536) |
| | | | 0.5-0.8-1.6 1.8-2.6-4.9 <15 | 0.7-1.0-2.2 2.1-3.2-5.2 <15 | 0.9-1.1-2.9 2.5-3.9-5.6 21 | 1.0-1.3-3.3 3.0-4.3-6.2 24 | 1.1-1.6-3.7 3.6-4.7-6.6 28 | 1.2-1.9-3.8 3.9-4.8-6.8 31 | 1.3-2.1-3.9 4.5-5.4-7.4 35 | 1.5-2.4-4.2 4.8-5.7-7.7 38 | 1.7-2.8-4.4 5.3-6.2-7.4 40 | 1.9-3.2-4.5 6.2-7.1-8.1 43 | 2.2-3.4-4.6 7.1-8.1-9.1 46 | 2.3-3.6-5.3 4.5-5.4-7.6 44 |
| 525 x 450 | 0.083 S 0.061 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 247 (523) | 309 (655) | 370 (784) | 433 (918) | 495 (1049) | 556 (1178) | 620 (1314) | 680 (1441) | 740 (1568) | 800 (1695) | 865 (1833) | 865 (1833) |
| | | | 0.5-0.8-1.6 2.0-2.6-4.9 <15 | 0.7-1.0-2.2 2.2-3.4-5.3 19 | 0.9-1.1-2.9 2.5-4.2-5.7 22 | 1.0-1.3-3.3 3.0-4.5-6.2 26 | 1.1-1.6-3.7 3.6-4.8-6.7 29 | 1.2-1.9-3.8 3.9-5.0-6.9 32 | 1.3-2.1-3.9 4.5-5.7-7.8 36 | 1.5-2.4-4.2 4.8-5.7-7.8 38 | 1.7-2.8-4.4 5.3-6.2-7.4 40 | 1.9-3.2-4.5 6.2-7.1-8.1 43 | 2.2-3.4-4.6 7.1-8.1-9.1 46 | 2.3-3.6-5.3 4.5-5.4-7.6 44 |
| 600 x 450 | 0.096 S 0.070 R | L/S (CFM) Thx (m) Noise Level | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | | 282 (598) | 353 (748) | 425 (900) | 495 (1050) | 567 (1200) | 640 (1356) | 708 (1500) | 781 (1655) | 853 (1810) | 923 (1955) | 995 (2110) | 995 (2110) |
| | | | 0.5-0.8-1.6 2.3-2.9-5.1 <15 | 0.7-1.0-2.2 2.6-3.6-5.6 19 | 0.9-1.1-2.9 2.9-4.4-6.1 23 | 1.0-1.3-3.3 3.5-4.8-6.5 26 | 1.1-1.6-3.7 4.2-5.1-7.1 29 | 1.2-1.9-3.8 3.7-5.0-6.9 32 | 1.3-2.1-3.9 4.5-5.7-7.8 36 | 1.5-2.4-4.2 4.8-5.7-7.8 38 | 1.7-2.8-4.4 5.3-6.2-7.4 40 | 1.9-3.2-4.5 6.2-7.1-8.1 43 | 2.2-3.4-4.6 7.1-8.1-9.1 46 | 2.3-3.6-5.3 4.5-5.4-7.6 44 |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.



Model 4WR



Model 3WR

CEILING DIFFUSERS

Engineering & Performance Data

Tabular Selection for 3 Way Rectangular Diffusers - Model 3WR

TABLE CD-12

| SIZE | A _{eff.} (m ²) | V _n FPM (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 225 x 150 | 0.009 S 0.008 R | L/S (CFM) | 35 (74) | 43 (91) | 52 (110) | 60 (127) | 70 (148) | 79 (167) | 91 (193) | 95 (201) | 103 (218) | 111 (235) | 120 (254) | |
| | | Thx (m) | 0.5-0.8-1.6 | 0.7-1.0-2.2 | 0.9-1.1-2.9 | 1.0-1.3-3.3 | 1.1-1.6-3.7 | 1.2-1.9-3.8 | 1.3-2.1-3.9 | 1.5-2.4-4.2 | 1.5-2.4-4.2 | 1.7-2.8-4.4 | 1.9-3.2-4.5 | 2.2-3.4-4.6 |
| | | Thy (m) | 1.1-1.3-2.6 | 1.2-1.5-3.9 | 1.3-1.7-4.2 | 1.5-2.1-4.3 | 1.7-2.6-4.4 | 1.8-3.2-4.6 | 1.9-3.6-4.8 | 2.4-3.9-5.2 | 2.4-3.9-5.2 | 2.9-4.1-5.4 | 2.3-4.2-5.6 | 3.6-4.3-5.9 |
| 300 x 150 | 0.011 S 0.010 R | Noise Level | <15 | <15 | 15 | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 37 | |
| | | L/S (CFM) | 47 (100) | 49 (104) | 70 (148) | 82 (174) | 95 (201) | 105 (222) | 120 (254) | 130 (275) | 143 (303) | 156 (330) | 168 (356) | |
| | | Thx (m) | 0.5-0.8-1.6 | 0.7-1.0-2.2 | 0.9-1.1-2.9 | 1.0-1.3-3.3 | 1.1-1.6-3.7 | 1.2-1.9-3.8 | 1.3-2.1-3.9 | 1.5-2.4-4.2 | 1.5-2.4-4.2 | 1.7-2.8-4.4 | 1.9-3.2-4.5 | 2.2-3.4-4.6 |
| 300 x 225 | 0.012 S 0.011 R | Noise Level | <15 | <15 | 16 | 19 | 22 | 25 | 28 | 31 | 34 | 36 | 37 | |
| | | L/S (CFM) | 70 (148) | 87 (184) | 105 (222) | 123 (261) | 140 (297) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | |
| | | Thx (m) | 0.8-1.3-2.4 | 1.2-1.4-2.7 | 1.4-1.6-3.5 | 1.5-1.9-4.0 | 1.6-2.3-4.5 | 1.7-2.6-4.6 | 1.8-3.2-4.6 | 2.2-2.4-4.6 | 2.2-2.4-4.6 | 2.7-4.8-6.2 | 3.0-4.4-5.8 | 3.7-4.4-6.3 |
| 375 x 225 | 0.026 S 0.021 R | Noise Level | <15 | <15 | 16 | 20 | 23 | 27 | 30 | 33 | 35 | 37 | 40 | |
| | | L/S (CFM) | 87 (184) | 110 (233) | 131 (278) | 156 (331) | 177 (375) | 199 (422) | 220 (466) | 243 (515) | 265 (562) | 287 (608) | 310 (657) | |
| | | Thx (m) | 1.2-1.4-2.7 | 1.4-1.6-3.5 | 1.6-2.3-4.5 | 1.8-2.4-4.6 | 2.0-2.7-5.3 | 2.2-2.9-5.4 | 2.4-3.7-5.8 | 2.7-4.0-5.6 | 2.7-4.0-5.6 | 3.2-4.6-6.2 | 3.5-4.8-6.7 | 4.3-5.1-7.3 |
| 450 x 225 | 0.031 S 0.025 R | Noise Level | <15 | <15 | 18 | 21 | 24 | 28 | 31 | 34 | 37 | 39 | 41 | |
| | | L/S (CFM) | 105 (222) | 132 (280) | 160 (339) | 186 (394) | 213 (451) | 240 (509) | 267 (566) | 294 (623) | 320 (678) | 328 (695) | 375 (795) | |
| | | Thx (m) | 0.8-1.3-2.4 | 1.2-1.4-2.7 | 1.4-1.6-3.5 | 1.5-1.9-4.0 | 1.6-2.3-4.5 | 1.7-2.6-4.6 | 1.9-2.9-4.7 | 2.1-3.2-5.0 | 2.3-3.6-5.3 | 2.3-3.6-5.3 | 2.6-3.9-5.5 | 2.9-4.3-5.8 |
| 525 x 225 | 0.037 S 0.030 R | Noise Level | <15 | <15 | 19 | 22 | 25 | 29 | 32 | 34 | 37 | 40 | 42 | |
| | | L/S (CFM) | 125 (265) | 157 (333) | 190 (403) | 221 (468) | 253 (536) | 285 (604) | 317 (672) | 350 (742) | 381 (807) | 413 (875) | 445 (943) | |
| | | Thx (m) | 1.1-1.6-3.3 | 1.4-2.0-3.8 | 1.7-2.4-4.4 | 1.9-2.8-4.7 | 2.1-3.3-5.1 | 2.4-3.6-5.3 | 2.7-3.9-5.6 | 3.0-4.2-5.8 | 3.3-4.5-6.1 | 3.3-4.5-6.1 | 3.7-4.9-6.6 | 4.7-5.6-8.0 |
| 375 x 300 | 0.037 S 0.029 R | Noise Level | <15 | 15 | 20 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 43 | |
| | | L/S (CFM) | 113 (239) | 143 (303) | 174 (369) | 204 (432) | 253 (536) | 285 (604) | 296 (627) | 326 (691) | 357 (756) | 387 (820) | 418 (886) | |
| | | Thx (m) | 1.1-1.6-3.3 | 1.4-2.0-3.8 | 1.7-2.4-4.4 | 1.9-2.8-4.7 | 2.1-3.3-5.1 | 2.4-3.6-5.3 | 2.7-3.9-5.6 | 3.0-4.2-5.8 | 3.3-4.5-6.1 | 3.3-4.5-6.1 | 3.7-4.9-6.6 | |
| 450 x 300 | 0.044 S 0.035 R | Noise Level | <15 | 16 | 20 | 23 | 27 | 29 | 33 | 36 | 39 | 41 | 44 | |
| | | L/S (CFM) | 140 (297) | 175 (371) | 210 (445) | 245 (519) | 280 (593) | 315 (667) | 350 (742) | 385 (816) | 420 (890) | 455 (964) | 490 (1038) | |
| | | Thx (m) | 1.1-1.6-3.3 | 1.4-2.0-3.8 | 1.7-2.4-4.4 | 1.9-2.8-4.7 | 2.1-3.3-5.1 | 2.4-3.6-5.3 | 2.7-3.9-5.6 | 3.0-4.2-5.8 | 3.3-4.5-6.1 | 3.3-4.5-6.1 | 3.7-4.9-6.6 | |
| 450 x 375 | 0.058 S 0.044 R | Noise Level | <15 | 16 | 20 | 23 | 27 | 29 | 33 | 36 | 39 | 41 | 44 | |
| | | L/S (CFM) | 178 (377) | 222 (470) | 265 (562) | 310 (657) | 355 (752) | 400 (848) | 445 (943) | 487 (1032) | 532 (1127) | 576 (1221) | 620 (1314) | |
| | | Thx (m) | 1.4-1.9-3.9 | 1.7-2.4-4.4 | 2.1-2.9-4.9 | 2.3-3.4-5.4 | 2.5-3.9-5.6 | 2.9-4.1-6.0 | 3.3-4.3-6.5 | 3.6-4.5-6.6 | 3.9-4.8-6.8 | 4.3-5.0-7.2 | 4.7-5.3-7.6 | |
| 525 x 375 | 0.068 S 0.051 R | Noise Level | <15 | 19 | 21 | 24 | 28 | 29 | 32 | 35 | 38 | 40 | 43 | |
| | | L/S (CFM) | 205 (434) | 257 (545) | 309 (655) | 361 (765) | 412 (873) | 465 (985) | 517 (1096) | 569 (1206) | 619 (1312) | 673 (1426) | 725 (1536) | |
| | | Thx (m) | 1.4-1.9-3.9 | 1.7-2.4-4.4 | 2.1-2.9-4.9 | 2.3-3.4-5.4 | 2.5-3.9-5.6 | 2.9-4.1-6.0 | 3.3-4.3-6.5 | 3.6-4.5-6.6 | 3.9-4.8-6.8 | 4.3-5.0-7.2 | 4.7-5.3-7.6 | |
| 525 x 450 | 0.083 S 0.061 R | Noise Level | <15 | 19 | 22 | 26 | 29 | 32 | 35 | 38 | 41 | 43 | 46 | |
| | | L/S (CFM) | 247 (523) | 309 (655) | 370 (784) | 433 (918) | 495 (1049) | 556 (1178) | 620 (1314) | 680 (1441) | 740 (1568) | 800 (1695) | 865 (1833) | |
| | | Thx (m) | 1.7-2.3-4.6 | 2.0-2.9-5.0 | 2.3-3.6-5.4 | 2.8-4.2-5.9 | 3.3-4.6-6.4 | 3.9-5.0-6.9 | 4.0-5.5-7.5 | 4.3-5.6-7.7 | 4.6-5.7-8.0 | 4.8-5.8-8.1 | 4.9-5.8-8.2 | |
| 600 x 450 | 0.096 S 0.070 R | Noise Level | <15 | 19 | 22 | 26 | 29 | 32 | 35 | 38 | 41 | 43 | 45 | |
| | | L/S (CFM) | 282 (598) | 353 (748) | 425 (900) | 495 (1050) | 567 (1200) | 640 (1356) | 708 (1500) | 781 (1655) | 853 (1810) | 923 (1955) | 995 (2110) | |
| | | Thx (m) | 1.7-2.3-4.6 | 2.0-2.9-5.0 | 2.3-3.6-5.4 | 2.8-4.2-5.9 | 3.3-4.6-6.4 | 3.9-5.0-6.9 | 4.0-5.5-7.5 | 4.3-5.6-7.7 | 4.6-5.7-8.0 | 4.8-5.8-8.1 | 4.9-5.8-8.2 | |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.

CEILING DIFFUSERS

Engineering & Performance Data

Tabular Selection for 2 Way Rectangular Diffusers - Model 2WR-H and 2WR-V

TABLE CD-13

| SIZE | A _{eff.} (m ²) | V _n FFM (m/s) | ΔP _{flwing} (Pa) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-----------------------------|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 225 x 150 | 9" x 6" 0.009 R | L/S (CFM) | 35 (74) | 0.019 (5) | 43 (91) | 52 (110) | 60 (127) | 70 (148) | 79 (167) | 91 (193) | 95 (201) | 103 (218) | 111 (235) | 120 (254) | |
| | | Th. (m) | 0.8-1.6-3.7 | 1.1-2.0-3.8 | 1.4-2.5-4.0 | 1.7-2.9-4.3 | 2.1-3.6-4.5 | 2.2-3.7-4.6 | 2.3-3.8-4.8 | 2.3-3.8-4.8 | 2.3-3.8-4.8 | 2.7-3.9-5.1 | 3.3-4.0-5.8 | 3.4-4.1-6.0 | 3.5-4.2-6.3 |
| | | Noise Level | <15 | <15 | 15 | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 34 | 34 | 37 |
| 300 x 150 | 12" x 8" 0.010 R | L/S (CFM) | 47 (100) | 0.019 (5) | 49 (104) | 70 (148) | 82 (174) | 95 (201) | 105 (222) | 120 (254) | 130 (275) | 143 (303) | 156 (330) | 168 (356) | |
| | | Th. (m) | 1.1-1.7-3.7 | 1.3-2.2-3.9 | 1.6-2.6-4.2 | 1.8-3.0-4.6 | 2.2-3.6-5.1 | 2.4-3.8-5.3 | 2.6-4.2-5.6 | 2.6-4.2-5.6 | 2.6-4.2-5.6 | 3.0-4.3-5.8 | 3.5-4.4-6.2 | 3.6-4.5-6.4 | 3.8-4.6-6.7 |
| | | Noise Level | <15 | <15 | 16 | 19 | 22 | 25 | 28 | 31 | 34 | 36 | 36 | 36 | 37 |
| 375 x 150 | 15" x 6" 0.015 R | L/S (CFM) | 60 (127) | 0.019 (5) | 75 (159) | 90 (191) | 105 (222) | 120 (254) | 135 (286) | 150 (318) | 165 (350) | 180 (381) | 195 (413) | 210 (445) | |
| | | Th. (m) | 1.2-2.1-4.0 | 1.6-2.5-4.2 | 2.1-3.0-4.5 | 2.3-3.5-4.8 | 2.6-4.0-5.3 | 2.7-4.1-5.6 | 2.9-4.3-6.1 | 3.3-4.4-6.3 | 3.7-4.5-6.5 | 3.7-4.5-6.5 | 3.8-4.6-6.7 | 3.8-4.6-6.7 | 3.9-4.8-7.1 |
| | | Noise Level | <15 | <15 | 16 | 20 | 22 | 26 | 28 | 31 | 34 | 36 | 36 | 36 | 38 |
| 450 x 150 | 18" x 6" 0.019 R | L/S (CFM) | 70 (148) | 0.022 S | 87 (184) | 105 (222) | 123 (261) | 140 (297) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | |
| | | Th. (m) | 1.2-2.1-3.9 | 1.6-2.5-4.4 | 2.1-3.0-4.9 | 2.4-3.5-5.2 | 2.7-4.0-5.6 | 2.9-4.2-5.9 | 3.2-4.5-6.3 | 3.2-4.5-6.3 | 3.2-4.5-6.3 | 3.5-4.6-6.5 | 3.9-4.7-6.9 | 4.0-4.9-7.1 | 4.1-5.1-7.4 |
| | | Noise Level | <15 | <15 | 16 | 20 | 23 | 27 | 30 | 33 | 35 | 37 | 37 | 37 | 40 |
| 300 x 225 | 12" x 9" 0.019 R | L/S (CFM) | 70 (148) | 0.022 S | 87 (184) | 105 (222) | 123 (261) | 140 (297) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | |
| | | Th. (m) | 1.3-2.2-4.0 | 1.6-2.6-4.4 | 2.2-3.1-4.9 | 2.5-3.5-5.3 | 2.8-4.1-5.7 | 3.1-4.3-6.0 | 3.3-4.6-6.4 | 3.6-4.7-6.6 | 3.3-4.6-6.4 | 3.6-4.7-6.6 | 4.0-5.0-7.3 | 4.2-5.2-7.5 | |
| | | Noise Level | <15 | <15 | 16 | 20 | 23 | 27 | 30 | 33 | 35 | 37 | 37 | 40 | |
| 375 x 225 | 15" x 9" 0.023 R | L/S (CFM) | 87 (184) | 0.028 S | 110 (233) | 131 (278) | 156 (331) | 177 (375) | 199 (422) | 220 (466) | 243 (515) | 265 (562) | 287 (608) | 310 (657) | |
| | | Th. (m) | 1.4-2.3-4.2 | 1.7-2.7-4.5 | 2.3-3.2-5.1 | 2.6-3.7-5.5 | 2.9-4.3-5.9 | 3.2-4.4-6.3 | 3.6-4.7-6.7 | 3.6-4.7-6.7 | 3.6-4.7-6.7 | 3.8-4.8-6.8 | 4.1-5.1-7.1 | 4.2-5.2-7.4 | 4.4-5.3-7.7 |
| | | Noise Level | <15 | <15 | 18 | 21 | 24 | 27 | 31 | 34 | 37 | 39 | 39 | 41 | |
| 450 x 225 | 18" x 9" 0.026 R | L/S (CFM) | 105 (222) | 0.034 S | 132 (280) | 160 (339) | 186 (394) | 213 (451) | 240 (509) | 267 (566) | 294 (623) | 320 (678) | 328 (695) | 375 (795) | |
| | | Th. (m) | 1.6-2.4-4.4 | 1.9-2.9-4.7 | 2.3-3.5-5.3 | 2.7-4.0-5.5 | 3.2-4.5-6.0 | 3.5-4.6-6.4 | 3.9-4.7-6.8 | 4.2-5.0-7.1 | 4.5-5.3-7.5 | 4.6-5.5-7.7 | 4.6-5.5-7.7 | 4.8-5.6-8.1 | |
| | | Noise Level | <15 | <15 | 18 | 22 | 25 | 28 | 32 | 34 | 37 | 40 | 40 | 42 | |
| 525 x 225 | 21" x 9" 0.032 R | L/S (CFM) | 125 (265) | 0.040 S | 157 (333) | 190 (403) | 221 (468) | 253 (536) | 285 (604) | 317 (672) | 350 (742) | 381 (807) | 413 (875) | 445 (943) | |
| | | Th. (m) | 1.6-2.5-4.5 | 2.0-3.2-5.0 | 2.5-3.9-5.6 | 3.0-4.1-5.9 | 3.5-4.4-6.3 | 3.7-4.7-6.6 | 4.1-5.0-7.1 | 4.3-5.3-7.4 | 4.5-5.6-7.9 | 4.6-5.7-8.1 | 4.6-5.7-8.1 | 4.8-5.9-8.3 | |
| | | Noise Level | <15 | <15 | 19 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 40 | 43 | |
| 375 x 300 | 15" x 12" 0.030 R | L/S (CFM) | 113 (239) | 0.039 S | 143 (303) | 174 (369) | 204 (432) | 235 (498) | 265 (562) | 296 (627) | 326 (691) | 357 (756) | 387 (820) | 418 (886) | |
| | | Th. (m) | 1.6-2.5-4.4 | 2.0-3.1-4.8 | 2.5-3.6-5.3 | 2.8-4.1-5.7 | 3.3-4.5-6.2 | 3.6-4.7-7.0 | 3.9-5.1-7.8 | 4.2-5.2-7.9 | 4.5-5.3-8.1 | 4.6-5.5-8.2 | 4.6-5.5-8.2 | 4.8-5.7-8.3 | |
| | | Noise Level | <15 | 15 | 20 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 40 | 43 | |
| 450 x 300 | 18" x 12" 0.037 R | L/S (CFM) | 140 (297) | 0.047 S | 175 (371) | 210 (445) | 245 (519) | 280 (593) | 315 (667) | 350 (742) | 385 (816) | 420 (890) | 455 (964) | 490 (1038) | |
| | | Th. (m) | 1.9-2.6-4.7 | 2.2-3.5-5.1 | 2.5-4.2-5.6 | 3.0-4.4-6.0 | 3.5-4.6-6.5 | 4.0-5.1-7.2 | 4.5-5.4-7.2 | 4.6-5.5-7.7 | 4.8-5.7-8.3 | 4.9-6.0-8.4 | 4.9-6.0-8.4 | 5.1-6.3-8.6 | |
| | | Noise Level | <15 | 15 | 20 | 22 | 26 | 30 | 33 | 36 | 39 | 41 | 41 | 44 | |
| 525 x 300 | 21" x 12" 0.043 R | L/S (CFM) | 163 (345) | 0.056 S | 205 (434) | 252 (534) | 290 (615) | 330 (699) | 374 (793) | 415 (879) | 460 (975) | 500 (1060) | 542 (1148) | 585 (1240) | |
| | | Th. (m) | 2.1-2.8-4.8 | 2.7-3.5-5.3 | 3.1-4.1-5.8 | 3.5-4.4-6.4 | 3.9-4.7-7.0 | 4.2-5.1-7.2 | 4.5-5.4-7.5 | 4.6-5.7-7.8 | 4.8-6.0-8.3 | 5.1-6.2-8.7 | 5.1-6.2-8.7 | 5.5-6.4-9.1 | |
| | | Noise Level | <15 | 16 | 20 | 24 | 27 | 31 | 34 | 37 | 40 | 42 | 42 | 45 | |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.

CEILING DIFFUSERS

Engineering & Performance Data

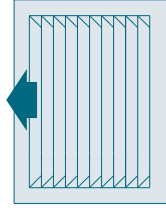
Tabular Selection for 1 Way Rectangular Diffusers - Model 1WR-H and 1WR-V

TABLE CD-14

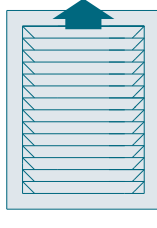
| SIZE | A _{eff.} (m ²) | V _n fpm (m/s) | 200 (1.0) | 250 (1.25) | 300 (1.5) | 350 (1.75) | 400 (2.0) | 450 (2.25) | 500 (2.5) | 550 (2.75) | 600 (3.0) | 650 (3.25) | 700 (3.5) | |
|-----------|--|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 225 x 150 | 9" x 6" 0.009 R | ΔP _{fining} (Pa) | 0.019 (5) | 0.031 (8) | 0.047 (12) | 0.063 (16) | 0.082 (21) | 0.094 (24) | 0.129 (33) | 0.141 (36) | 0.184 (47) | 0.207 (53) | 0.250 (64) | |
| | | L/S (CFM) | 35 (74) | 43 (91) | 52 (110) | 60 (127) | 79 (167) | 91 (193) | 103 (218) | 111 (235) | 120 (254) | 120 (254) | 120 (254) | 120 (254) |
| | | Th. (m) | 1.1-1.6-4.2 | 1.3-2.5-4.3 | 1.6-3.7-4.6 | 2.3-3.9-5.0 | 3.2-4.1-5.5 | 3.4-4.2-5.6 | 3.6-4.3-6.2 | 3.8-4.4-6.3 | 4.1-4.8-6.5 | 4.1-4.8-6.5 | 4.2-5.0-6.8 | 4.2-5.0-6.8 |
| 300 x 150 | 12"x 8" 0.010 R | Noise Level | <15 | <15 | 15 | 17 | 20 | 23 | 26 | 28 | 31 | 34 | 37 | |
| | | L/S (CFM) | 47 (100) | 49 (104) | 70 (148) | 82 (174) | 105 (222) | 120 (254) | 150 (318) | 165 (350) | 180 (381) | 195 (413) | 210 (445) | 210 (445) |
| | | Th. (m) | 1.4-1.9-4.5 | 1.7-2.4-4.7 | 2.1-3.9-5.0 | 2.7-4.2-5.5 | 3.6-4.5-6.0 | 3.7-4.6-6.5 | 3.9-4.7-7.0 | 4.2-4.8-7.1 | 4.5-5.0-7.3 | 4.5-5.0-7.3 | 4.6-5.3-7.5 | 4.6-5.3-7.5 |
| 375 x 150 | 15"x 6" 0.015 R | Noise Level | <15 | <15 | 16 | 20 | 22 | 25 | 28 | 31 | 34 | 36 | 38 | |
| | | L/S (CFM) | 60 (127) | 75 (159) | 90 (191) | 105 (222) | 135 (286) | 150 (318) | 165 (350) | 180 (381) | 195 (413) | 210 (445) | 210 (445) | 210 (445) |
| | | Th. (m) | 1.6-2.4-4.7 | 1.9-3.2-5.1 | 2.3-4.1-5.4 | 2.9-4.4-5.8 | 3.8-4.8-6.6 | 3.8-4.8-6.6 | 3.9-4.9-7.2 | 4.3-5.1-7.3 | 4.7-5.4-7.5 | 4.7-5.4-7.5 | 4.8-5.6-7.7 | 4.8-5.6-7.7 |
| 450 x 150 | 18"x 6" 0.019 R | Noise Level | <15 | <15 | 16 | 20 | 23 | 27 | 30 | 33 | 35 | 37 | 40 | |
| | | L/S (CFM) | 70 (148) | 87 (184) | 105 (222) | 123 (261) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | 245 (519) | 245 (519) |
| | | Th. (m) | 1.7-2.5-4.7 | 2.1-3.3-5.1 | 2.5-4.1-5.6 | 3.2-4.4-6.1 | 4.0-4.9-7.0 | 4.1-5.0-7.5 | 4.1-5.0-7.5 | 4.5-5.3-7.6 | 4.9-5.7-7.8 | 4.9-5.7-7.8 | 5.0-6.0-8.1 | 5.1-6.3-8.5 |
| 300 x 225 | 12"x 9" 0.019 R | Noise Level | <15 | <15 | 16 | 20 | 23 | 27 | 30 | 33 | 35 | 37 | 40 | |
| | | L/S (CFM) | 70 (148) | 87 (184) | 105 (222) | 123 (261) | 157 (333) | 175 (371) | 192 (407) | 210 (445) | 223 (473) | 245 (519) | 245 (519) | 245 (519) |
| | | Th. (m) | 1.8-2.5-4.8 | 2.2-3.3-5.2 | 2.6-4.2-5.7 | 3.2-4.5-6.2 | 4.0-4.9-7.1 | 4.2-5.1-7.6 | 4.2-5.1-7.6 | 4.6-5.4-7.7 | 5.0-5.8-7.9 | 5.0-5.8-7.9 | 5.1-6.2-8.2 | 5.2-6.4-8.6 |
| 375 x 225 | 15"x 9" 0.023 R | Noise Level | <15 | <15 | 18 | 21 | 24 | 27 | 30 | 33 | 35 | 37 | 40 | |
| | | L/S (CFM) | 87 (184) | 110 (233) | 131 (278) | 156 (331) | 199 (422) | 220 (466) | 243 (515) | 265 (562) | 287 (608) | 310 (657) | 310 (657) | 310 (657) |
| | | Th. (m) | 1.9-2.9-5.1 | 2.3-3.6-5.4 | 2.8-4.4-5.9 | 3.4-4.8-6.4 | 4.3-5.2-7.3 | 4.5-5.4-7.8 | 4.7-5.7-8.1 | 5.1-6.0-8.4 | 5.1-6.0-8.4 | 5.2-6.3-8.6 | 5.2-6.3-8.6 | 5.3-6.6-9.0 |
| 450 x 225 | 18"x 9" 0.026 R | Noise Level | <15 | <15 | 18 | 22 | 25 | 28 | 32 | 34 | 37 | 40 | 42 | |
| | | L/S (CFM) | 105 (222) | 132 (280) | 160 (339) | 186 (394) | 240 (509) | 267 (566) | 294 (623) | 320 (678) | 328 (695) | 375 (795) | 375 (795) | 375 (795) |
| | | Th. (m) | 2.3-3.3-5.1 | 2.7-3.9-5.7 | 3.3-4.5-6.3 | 3.7-4.9-6.7 | 4.5-5.4-7.6 | 4.8-5.7-8.1 | 4.9-5.9-8.2 | 5.1-6.3-8.4 | 5.1-6.3-8.4 | 5.3-6.6-9.0 | 5.3-6.6-9.0 | 5.6-6.9-9.7 |
| 525 x 225 | 21"x 9" 0.032 R | Noise Level | <15 | <15 | 19 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 43 | |
| | | L/S (CFM) | 125 (265) | 157 (333) | 190 (403) | 221 (468) | 285 (604) | 317 (672) | 350 (742) | 381 (807) | 413 (875) | 445 (943) | 445 (943) | 445 (943) |
| | | Th. (m) | 2.4-3.5-5.3 | 3.0-4.1-5.8 | 3.5-4.7-6.5 | 3.9-5.0-6.9 | 4.7-5.7-7.8 | 5.0-6.0-8.3 | 5.1-6.2-8.5 | 5.3-6.5-8.9 | 5.3-6.5-8.9 | 5.4-6.7-9.4 | 5.4-6.7-9.4 | 5.6-7.1-10 |
| 375 x 300 | 15"x 12" 0.030 R | Noise Level | <15 | 15 | 20 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 43 | |
| | | L/S (CFM) | 113 (239) | 143 (303) | 174 (369) | 204 (432) | 265 (562) | 296 (627) | 326 (691) | 357 (756) | 387 (820) | 418 (886) | 418 (886) | 418 (886) |
| | | Th. (m) | 2.4-3.5-5.3 | 2.9-4.0-5.7 | 3.5-4.7-6.3 | 3.9-5.0-6.8 | 4.4-5.4-7.4 | 4.8-5.7-8.3 | 5.1-5.9-8.6 | 5.3-6.2-8.9 | 5.3-6.2-8.9 | 5.4-6.5-9.3 | 5.4-6.5-9.3 | 5.6-6.9-9.8 |
| 450 x 300 | 18"x 12" 0.037 R | Noise Level | <15 | 15 | 20 | 22 | 26 | 29 | 33 | 35 | 38 | 40 | 43 | |
| | | L/S (CFM) | 140 (297) | 175 (371) | 210 (445) | 245 (519) | 315 (667) | 350 (742) | 385 (816) | 420 (890) | 455 (964) | 490 (1038) | 490 (1038) | 490 (1038) |
| | | Th. (m) | 2.5-3.9-5.7 | 3.2-4.3-6.2 | 3.9-4.8-6.9 | 4.1-5.2-7.4 | 4.7-5.9-8.3 | 5.1-6.2-8.7 | 5.4-6.6-9.0 | 5.8-7.0-9.4 | 5.8-7.0-9.4 | 5.9-7.1-9.8 | 6.0-7.2-10.4 | 6.0-7.2-10.4 |
| 525 x 300 | 21"x 12" 0.043 R | Noise Level | <15 | 16 | 20 | 24 | 27 | 31 | 34 | 37 | 40 | 42 | 45 | |
| | | L/S (CFM) | 163 (345) | 205 (434) | 252 (534) | 290 (615) | 374 (793) | 415 (879) | 460 (975) | 500 (1060) | 542 (1148) | 585 (1240) | 585 (1240) | 585 (1240) |
| | | Th. (m) | 3.0-4.3-5.7 | 3.7-4.7-6.2 | 4.2-5.2-6.9 | 4.5-5.3-7.4 | 5.1-6.1-8.5 | 5.5-6.4-9.0 | 5.6-6.7-9.5 | 5.8-7.0-10.1 | 6.1-7.2-10.4 | 6.4-7.5-10.7 | 6.4-7.5-10.7 | 6.4-7.5-10.7 |

Tabulated data are subject to the same corrections as in page No. CD-13.

BCI reserves the right to make changes without prior notice.



Model 1WR-H



Model 1WR-V

CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

Ordering Data

- Available Surface Finishes For Diffusers :**

- Natural / Matt Silver Anodized .
- Powder Coating (Standard Colors are white RAL 9010 / 9016, other optional colors if required to be provided in RAL - No. only and charged extra).
- Aluminium in Mill Finish.
- Other Special Finishes (on request if available).

- Available Surface Finishes For Opposed Blade Dampers & Equalizing Grids :**

- Aluminium in Mill Finish (standard).
- Matt Black Powder Coating (optional).

- Ordering Specifications :**

Specify :

- 1 . Diffuser Description (Supply, Return, Extract, Exhaust, Dummy, Fresh Air ,etc.).
- 2 . Model / Type (Specify Pattern Arrangement).
- 3 . Shape (Square or Rectangular).
- 4 . Opposed Blade Damper Surface Finish (only mention if required in Black color).
- 5 . Nominal / Neck size.
- 6 . Quantity.
- 7 . Diffuser Surface Finish.
- 8 . RAL - No. (only mention if powder coating surface finish is required).
- 9 . Optional Accessories (Equalizing Grid, Gasket, Adaptor,..... or others).

Example 1 :

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----|----|---|----|--------------------------------|----|-------------------|------|-----------------------|
| SAD | 4W | S | BD | 12" x 12" 300 x 300 (mm) | 10 | Powder Coating | 9016 | With Rubber Gasket |

Example 2 :

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----|----|---|---|-------------------------------|---|--------------------|---|---|
| SAD | 3W | R | - | 18" x 9" 450 x 225 (mm) | 5 | Silver Anodized | - | - |

Example 3 :

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----|----|---|---|--------------------------------|----|-------------------|--------------------|---|
| RAD | 4W | S | - | 18" x 18" 450 x 450 (mm) | 15 | Powder Coating | 7045 (Optional) | - |



CEILING DIFFUSERS



LOUVRED FACE, MULTI DIRECTIONAL WITH REMOVABLE CORE

